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SOME IMPRESSIONS OF THE MEDICAL DEPARTMENT OF THE JOHNS HOPKINS UNIVERSITY; WITH MENTION OF A FEW CASES SEEN IN THE JOHNS HOPKINS HOSPITAL.

By SEALE HARRIS, M.D.

Editor Alabama Medical Journal:

According to my promise to write you something of the various things of interest to me in my wanderings during the year which I am giving to medical study, and in response to your kind letter received a few days ago asking for an article for the coming number of your journal, I will "gossip" a little about the affairs of "The Hopkins," and will incidentally mention a few cases that have proved interesting to me.

To say that I am delighted with the "Johns Hopkins" and the work I am getting here but freely expresses my real view of the situation. There is an atmosphere of true scientific work here that is delightful and inspiring to one interested in medicine. Here as the song goes "everybody works," not even excepting "Father" (Dr. Welch is affectionately alluded to by the students as "Popsy"). From Dr. Welch down to the first year student there is evidenced a spirit of scientific work and research that is seen in but few institutions. One cannot but be impressed with the absolute honesty

of all the work done here. In fact, it is this honesty of purpose and the determination to "go to the bottom" of every question which arises that has gone far towards giving the Johns Hopkins Hospital its prestige of today. Statistics and reports of work done at "The Hopkins" are accepted everywhere as being absolutely honest and accurate. Dr. Welch, who may be called the Nestor of the institution, is still quite active and is a delight and an inspiration to every one with whom he comes in contact. It was he who first conceived the idea of founding an institution based upon pathology, and in beginning the work of the Johns Hopkins University he, with Dr. Gilman, selected men who were first pathologists; and from this foundation they developed their special lines of work. It was these pathologists, Drs. Halsted and Kelly and their assistants, who developed the wonderful "Johns Hopkins technique" in aseptic surgery; and it was along this line that Dr. Osler developed his remarkable system of teaching and practicing medicine. The man who knows the pathological changes that occur in the different organs and tissues from the various diseases, is the one best fitted to discover methods for relieving those conditions. It was the grasping of this principle and with indomitable work, united with an able mind, which caused one of my classmates, Dr. Hugh Young (University of Virginia, 1894), to become the most noted genito-urinary surgeon in the world. When Dr. Young came to the Johns Hopkins Hospital for post-graduate work comparatively little had been done in the pathology of genito-urinary surgery. He studied the question from the pathological and bacterio-logical standpoints. He was the first man to cultivate the gonococcus in a culture medium of blood serum. He continued work along pathological lines and evolved his operation of complete prostatectomy by the perineal method, and his operation has been adopted by surgeons all over the world; and, incidentally, his fame in this line has brought Dr. Young one of the most lucrative practices in this country. I have heard his income from his practice variously estimated at from \$50,000 to \$150,000 per annum. A few days ago he carried me with him on his rounds in the hospital, visiting his private patients, and they were from all sections of the country, one of them being from California. I was interested in seeing these patients of my former classmate, though I must admit that I

breathed a sigh of relief at the thought that never more will I treat genito-urinary diseases, which was always the most unsatisfactory work that I had during my eleven years of general practice.

Though Dr. Osler is now Regius Professor of Medicine in Oxford University, England, his spirit is still actively at work here, and has permeated every man on the medical side of the hospital. From the professors to the third year students, all are "Oslerized" in what the word should stand for, i. e., being imbued with the idea of honest, faithful work along the broadest lines, an unfailing and intelligent interest in everything pertaining to the study of disease, and particularly, the love for research and the unusual in medicine. Dr. Osler recently visited the institution and gave a series of clinics and lectures to the students. Every one here has an admiration and an affection for Dr. Osler that amounts to a reverence for him, both as a man and as a teacher. Of course, the Johns Hopkins University misses Dr. Osler, but his mantle could not have fallen upon the shoulders of two more worthy men, viz., Dr. L. F. Barker, Professor of Medicine, and Dr. W. S. Thayer, Professor of Clinical Medicine. These two men, of different types, and, in a measure teaching medicine from different viewpoints, represent to my mind about the best that can be found in American medicine. I have had the opportunity at various times to follow a number of the leading clinicians in New York, Philadelphia and Chicago, and, from my viewpoint, I have never seen their superiors as clinicians. Dr. Barker is regarded here as a "wonder" and rightly so. He is one of the ablest and best trained anatomists and pathologists in America, he having been an assistant to Dr. Welch in the "Hopkins" for a number of years, and later was Professor of Anatomy and Pathology in the University of Chicago, going from there to the Chair of Medicine in the Rush Medical College, from which he was called to the Chair of Medicine in the Johns Hopkins University. He therefore goes at disease from the pathological viewpoint, and, incidentally, he has a decided penchant for the nervous side of medicine. In his clinics he lays great stress upon psychotherapy. He has recently advised his students to purchase a book, which has proved intensely interesting to me, a translation from Dr. Paul Dubois, Professor of Neuropathology at the University of Berne, on "The Psychic Treatment of Nervous Dis-

orders." Dr. Barker has convinced me that psychotherapy and the "re-education" of the digestive functions have a very important place in the treatment of digestive diseases.

Dr. Thayer views disease more from its clinical aspect, and has had a very wide and varied experience in medicine. For years he was intimately associated with Dr. Osler, first as an assistant and then as Associate Professor of Medicine. He too has done a great deal of original work in pathology and bacteriology, having been for a long time, and is now, our recognized authority on malarial diseases, and ranking with Dr. Osler in his knowledge of and experience with typhoid. I have never seen Dr. Thayer's peer in physical diagnosis. He is exceedingly careful in his examinations and can describe with greater accuracy the conditions that he finds in the patient than any man that I have ever followed. He examines a patient with no preconceived idea of what, from the patient's statement, he will find, but works up the diagnosis from a systematic and detailed examination, and having a splendid analytical mind he is usually correct in his conclusions. For example, on Monday in the ward rounds, he came to a patient who had come into the hospital complaining of vague stomach symptoms and who gave a history of having vomited blood. The fourth year student who had examined the patient previous to ward rounds, reported it as a case of chronic gastritis. After a very careful and systematic examination of the patient, in which the stomach contents, after the Ewald test breakfast, showed normal gastric secretion, Dr. Thayer proved to the satisfaction of all of us that it was a case of incipient tuberculosis of the lungs, and that the stomach symptoms played a secondary part. He brought out the very interesting and important point that it is rare for a person to vomit a small quantity of bright red blood in any disease of the stomach, that if such occurs it is usually from a haemoptysis which has gravitated into the stomach.

Dr. Futcher, Associate Professor of Medicine, is also a very able and careful clinician. Dr. Futcher, on yesterday, showed his ability as a diagnostician in going over a patient who came into the dispensary for "stomach trouble," with a history of no symptom other than "vomiting, one or two hours after eating supper, for the past four weeks." The patient was a well-nourished young man about

twenty-five years of age. No history of alcoholism. In the systematic examination of every part of the body, which is the routine in all examination here, were found mucous patches on his tonsils, enlarged cervical, epitrochlear and inguinal glands and a number of discrete, papular, brownish-red patches on his chest and arms. The liver was enlarged, and there was a small amount of fluid in the peritoneal cavity. Careful questioning developed the fact that six months ago the patient had had a chancre. The diagnosis was clearly one of early cirrhosis of liver from secondary syphilis. The prognosis, with antisypilitic treatment, is good; whereas, if this patient had been examined for his "stomach trouble" alone a serious and perhaps fatal error would have been made. I fear that too often in the hurry of general practice we attach too much importance to the patient's statement of his complaints. This case calls to my mind the old saying, credited by some to Sir John Hunter, that "the physician who knows syphilis in all its manifestations, has a good knowledge of medicine" and it is also a practical demonstration of the importance of the physician's having a broad knowledge of, and a wide experience in general medicine before undertaking to practice a specialty. Dr. Osler, in his address on "The Practitioner of Medicine," very forcibly brings out this point, i. e., "the dangers of adopting a specialty too early." In this connection I will call attention to a little volume that has just been published and which should be the constant companion of every student and practitioner of medicine. I refer to "Counsels and Ideals from the Writings of William Osler," which is a compilation, by Dr. C. N. B. Camac, of extracts from Dr. Osler's lectures and addresses. It contains more of wit and wisdom and more of really good advice to guide one through the "lights and shadows" that come into the life of a physician than any book of my acquaintance.

I have recently been interested in studying faeces and intestinal parasites, and, by the way, I know of nothing more important in the diagnosis of gastro-intestinal cases than the careful microscopic examination of faeces, and of nothing more generally neglected by the average physician. During this week I have had the opportunity of studying one case in the Johns Hopkins Hospital, and a specimen of faeces from another case of *strongyloides intestinalis*. Up to this

time only six cases have been reported in America, though the disease is frequent in China, in fact, is called the "Cochin, China Diarrhoea" from the fact that it was there that the first cases were found. It is interesting to note that two of the Hopkins cases were from Birmingham. In this, as in the production of pig iron, Birmingham leads the country. There must be others in Alabama infected with *strongyloides intestinalis*. And when I return there for practice I intend looking for such cases. There is very little American literature on *strongyloides intestinalis*. Perhaps the best and fullest article on the subject is by Dr. Thayer in "The Journal of Experimental Medicine," Vol. 5, No. 1, in which he reports the first three cases found in America. The disease is caused by a parasite, whose life history is somewhat analogous to the "hook worm," though somewhat smaller, and differs from *uncinariasis* in that the ova are never found in the faeces, but the habditiform embryo, which outside of the intestines gives out the ova, which in turn develop into the adult filariform *strongyloides*, is found in abundance in the faeces. The worms are microscopical in size and become imbedded in the mucous membrane of the intestines, causing a serious diarrhoea, and sometimes a grave anaemia, though blood is rarely seen in the stools. In the specimen that I have been studying in Dr. Charles Simon's Clinical Laboratory, where I work four afternoons in each week, there were many red blood cells, though microscopically the faeces did not show any evidence of blood. This specimen of faeces was sent to Dr. Simon by Dr. Lamar, of Milledgeville, Ga., who has recently finished a course in Dr. Simon's Laboratory. Dr. Simon, who was for several years connected with the Johns Hopkins Hospital and who is the author of Simon's "Clinical Diagnosis" and "Physiological Chemistry," gives in his private laboratory a very fine course in microscopy and clinical diagnosis to a limited number of physicians. He is of German descent, was educated in Germany, and is an enthusiast in his line who is an inspiration to those working under him.

I regret that I cannot mention some of the excellent work done by the skilled Drs. Emerson, Cole, McCrae and Boggs on the Medical Staff at the Johns Hopkins Hospital. It is needless to say that they all have the "Hopkins spirit" and are doing honest, faithful and even brilliant work in their respective lines.

Since I am not interested in surgery or gynecology I have only been on the surgical side of the hospital twice and then to follow up some cases seen on the medical wards. It is unnecessary to state that Drs. Halsted, Finney, Bloodgood, and Cushing on the surgical staff, and Drs. Kelly, Russell and Cullen, gynecologists, are keeping their departments up to the Hopkins standard. One of the patients seen on the surgical side, in whom I was interested, had a history of having attacks of "indigestion" with vomiting of blood and jaundice, and the question of diagnosis came up of possible ulcer of stomach or duodenum associated with a catarrhal cholangitis, or gall stones of the common duct. It proved to be the latter, though there were adhesions of the stomach and duodenum with the gall bladder, which in a measure accounted for the stomach symptoms. Another case in which I am greatly interested goes over for operation tomorrow, and I expect to see this case operated upon. The patient is a man fifty-six years of age, who, with the exception of occasional acid eructations, had been well up to a year ago, when he fainted and an hour or two later vomited a large quantity of blood. He also had tarry stools afterwards. He soon recovered from this attack and six months ago again fainted and vomited blood. Since then he has suffered continually, more at times than others, from a localized pain in the left epigastrium. While this pain does not seem to be affected by taking food he has been for some time on a restricted diet and has lost forty pounds in weight. There is no palpable tumor and but slight enlargement of the stomach. Examination of stomach contents one hour after the Ewald test breakfast showed a hydrochloric acidity of 26, and total acidity of 57, no lactic acid, sarcinae or Oppler Boas' bacilli. There is slight retention of stomach contents and on inspection over epigastrium there are seen occasional peristaltic waves, indicating a probable stenosis of the pylorus. The blood count shows 4,480,000 red blood cells, 9000 leucocytes and 82 per cent haemoglobin. While the indications point to ulcer of the stomach, carcinoma cannot be excluded, and an exploratory laparotomy has been wisely decided upon. In cases where there is a doubt as to the diagnosis of ulcer or carcinoma it is dangerous to wait for positive symptoms of cancer. If in a few days' examinations by a man skilled in gastric diagnosis, malignancy cannot be positively excluded,

an exploratory laparotomy is demanded. In such cases, more than in almost any other form of disease, the surgeon and the internist must work in harmony. An exploratory incision done by a skilled surgeon is attended with but little danger. If the case is a carcinoma and we wait for tumor formation, or until examination of stomach contents shows the characteristic changes in the digestive juice, i. e., absence of hydrochloric acid, presence of lactic acid, the Oppper-Boas bacillus, etc., it is too late for relief; though in such cases with pyloric obstruction, a gastro-enterostomy gives great relief, and often prolongs life. On the contrary, if the exploration of the abdomen reveals ulcer, a gastro-enterostomy, or, in suitable cases, Dr. Finney's gastro-duodenostomy (pyloroplasty), or excision of the ulcer, is attended with but slight mortality when the patient's condition is good.

The internist who defers consultation with the surgeon too long, and the surgeon who operates upon cases without the careful study of his case by a medical confrere, who is skilled in diagnosis in gastric diseases, are certain to come to grief. I know of nothing that reflects greater discredit upon the surgeon, and surgery, than a mistake in doing a gastro-enterostomy upon a patient with a simple dilated stomach, or upon a neurasthenic, who has digestive symptoms. I happen to have seen several such cases and, as is usual in neurasthenics, they have a long tale of woe to relate to any listener they may find. In properly selected cases, however, a gastro-enterostomy gives the most brilliant results of any operation that I know of in all surgery. For the physician who is specializing in gastric diseases there is a greater field for original investigation and research in working out the clinical evidences of the very early stage of carcinoma ventriculi, and in this work he must be in close touch with the surgeon. Up to this time both the surgeon and the internist must admit the utter hopelessness of the cure of cancer of the stomach.

Among the students here I find a number of Alabamians, who will, in the future, add lustre to the medical annals of our state. In the graduating class are three: Mr. E. M. Mason of Birmingham, Miss Wynn of Clayton, and Mr. H. W. Bass of Ashville. Mr. Mason, a brother of Dr. J. M. Mason, is taking a splendid stand in his class

here and has just won by competitive examination a position on the staff of the Lakeside Hospital in Cleveland, Ohio, where he will work for two years. He will probably locate in Birmingham, where he will be quite an addition to the number of well-prepared physicians already there. After graduating in June Mr. Mason will sail for Europe where he will study until he takes up his position in the hospital. Miss Wynn, who is a daughter of that distinguished physician and Confederate Surgeon, Dr. Wynn of Clayton, is an excellent student and is highly respected here. She will probably take up hospital work, either here or elsewhere before beginning practice. Mr. Bass will spend some time probably in one of the New York hospitals and is undecided where he will locate, though it is to be hoped that he will remain in his native state.

Among the other Alabamians here are Mr. W. W. Dinsmore (Class of 1907), Decatur, and Mr. W. S. Wyatt (Class of 1909) also of Decatur. I have several times seen Dr. Hugh Nelson, who is on the staff of the Union Protestant Infirmary, where he is making a splendid record and where he is highly esteemed. He will return to Birmingham in the early summer to enter practice with his uncle, Dr. Lewis Morris.

I cannot close this letter without mention of the work that is being done in the State of Maryland in the crusade against tuberculosis. It has been my good fortune to several times enjoy the hospitality of that prince of men, Dr. W. S. Thayer, who is President of the Maryland Tuberculosis Commission, and through him I have learned much of the work that has already had its effect in reducing the mortality and morbidity from tuberculosis. Through the influence of Dr. Thayer, Dr. Welch, Ex-Governor Smith and other prominent physicians and laymen, the Maryland Legislature, now in session, will appropriate—the bill is now up for its third reading in the Senate—\$100,000 for buildings and equipment, and \$15,000 annually for a sanatorium for the treatment of tuberculosis in the early stages. The Maryland Tuberculosis Commission, the Maryland Association for the Prevention of Tuberculosis, and many local societies have co-operated with the State Board of Health in this work, which shows results second to no State, except New York. There have been many popular lectures on tuberculosis delivered all over the State, litera-

ture discussing the prevalence, causes and prevention of tuberculosis has been distributed to the laity, and the newspapers and magazines have aided the medical profession in the campaign of education against the "great white plague."

Alabama is lagging in this great work of decreasing the ravages of a disease which every year causes more deaths than have all the epidemics of yellow fever and small-pox in the last fifty years. The State Public Health Department cannot be expected to do this work alone; it will have to receive the intelligent co-operation of the public and the medical profession before much can be accomplished.

I fear that I have already extended this letter beyond the endurance of your readers. I will promise to be more brief in possible future communications.

Baltimore, Md., April 2, 1906.

SOME REMARKS ON THE CHOICE BETWEEN CHLOROFORM AND ETHER FOR GENERAL ANESTHESIA.*

By CABOT LULL, M.D.

BIRMINGHAM, ALA.

The very triteness of the subject, which is only another expression for the fixedness of opinion in the minds of many, furnishes the apologia for the following:

It augurs ill for advancement along any line, when the mention of the subject causes mental weariness, and there is indeed little hope if dogma holds undisputed sway in the mind.

Instead of that mental attitude which makes us keen to perceive and eager to appropriate new ideas, and at the same time, willing to admit error, when proven in established beliefs, dogma asserts the divine right and infallibility of ruling ideas and waves off with a king-like gesture and a weary smile, all newcomers as imposters.

It is not so much the hope of the writer that he may advance any new or original ideas as that the discussion may rather cause some of us to inventory our old stock of principles and convictions and be able to "give a reason for the faith that is in us."

Although much research and experimentation has been made with

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other substances and certain advantages in selected cases have been demonstrated, chloroform and ether for general anesthesia are still our main dependance.

The scope of this paper will permit only very brief discussion of a few considerations that influence us in the choice between these two anesthetics. No attempt will be made to describe, with any completeness, the pharmacological action of the drugs, the signs of narcosis, nor the technique of anesthetization, all of which though elaborated upon in text-books, are learned only by actual experience.

By far the larger number of general practitioners, if asked what anesthetic they prefer, will answer without the slightest hesitation: "Chloroform;" and if you ask them if they ever give ether, they will tell you practically no, except in those rare cases where chloroform is absolutely contraindicated. They will admit that they give it without the slightest fear to children, robust men and frail women, and in obstetrical practice they employ it freely with perfect impunity. Now the justification for this exclusive use of chloroform is set forth in about the following course of reasoning:

"I know how to give chloroform, I know how much to give, I know its effects, I know the signs of danger, I watch the respiration and finally, to clinch the argument, I have given it under all manner of circumstances—ten, fifteen or forty years—and I have never lost a case."

In regard to ether you will be told that "it is far more disagreeable to patients on account of its pungent odor and its irritating property. It is very slow in its action, produces excitement and is followed by fearful nausea. It may be a little less dangerous immediately, though now and then I read of a case of death due primarily to ether narcosis, but when you take into consideration the secondary dangers, acute oedema, bronchitis and ether pneumonia, I don't know but that it's more to be feared than chloroform."

In this platform we see no mention of the classical indications and contraindications laid down by the books for our guidance in the selection of anesthetics.

It is a lamentable fact that to many general practitioners and not a few surgeons, these are dead letters. If recalled, they are not seriously considered, because it takes time to palpate the arteries and examine the heart, lungs and urine and so the presence or absence of

those pathological conditions which we are taught, should determine which is the safer anesthetic is a matter of conjecture.

There are circumstances under which it is impossible to make even a cursory examination of patients before anesthesia and emergencies often leave no choice of anesthetics, but these are the exception.

An interesting fact often lost sight of is that many times this ardent devotee of the one-anesthetic, who points with pride to his long unbroken series of cases, has been depending for his results on the skill or luck of first one then another of his assistants, he himself perhaps not administering one anesthetic a year. To balance such experience in the scale against the carefully recorded clinical and experimental observations of the best men of the time, calls for a bearing down on the personal equation end to the extent of almost inconceivable egotism.

Statistics, we are told, especially those bearing on mortality in anesthetics, must always be taken cum grano sale. So that—allowing a generous sprinkling of this commodity—we must believe that there are fully as many deaths as are reported, due to chloroform and ether.

Statistics compiled largely from the world's greatest hospitals, and hence more apt to be the most unbiased, are here presented: A total of 651,650 chloroform narcoses furnished 221 deaths (or 1 death in 2948 cases), while 433584 etherizations caused 31 deaths (or 1 death in 13,986 cases). These figures furnish about the generally recognized ratio of danger of chloroform to ether.

The number of deaths in any given series of cases due directly to careless administration or untoward happenings incidental to the anesthesia, can not, of course, be separated from those caused by the anesthetic per se. But with these cases cited, it is fair to assume that the management of the anesthetic was with a moderate degree of skill and the mortality is sufficient to demand some investigation and furnish some basis of comparison.

The effect of anesthetics is practically the same at all times and places, and the fact that one has not all the accessories and safeguards afforded by a well equipped hospital, does not, as some claim, make the more dangerous anesthetic the safer by reason of these adverse surroundings.

Chloroform ($C_2H_2Cl_4$) and ether (C_2H_6O) produce anesthesia by depressing the central nervous system, i. e., by shutting off the impulses which normally travel from periphery to centre and centre to periphery, the centres of respiration and circulation being more or less inhibited or actually paralyzed according to the amount of poison reaching them.

Repeated tests have demonstrated "that chloroform is from 3 to 3 1-2 times as depresant as ether, that is, it is that much greater in narcotizing power. Chloroform acts on the heart about 36 to 48 times as strongly as ether."

"The depression on the heart (gorilla and chimpanzee) is directly proportionate to the concentration of chloroform. In the air more than 1-2 of the chloroform breathed in is breathed out again at the outset, but later on the proportion in the expired air approaches that in the inspired. When the strength of chloroform vapor is lessened the amount of chloroform in the expired air becomes greater than that in the inspired air. (British Chloroform Com.)

Our most improved methods give only very little control in regulating the dosage and after all "the best apparatus is a good man" when we are dealing with an unbridled and powerful agent.

The action of chloroform and ether are then the same in kind, but different in strength on both the heart and respiration.

Practically we base a rule of action on this fact, select the anesthetic for a weak heart that will put the least strain upon it.

Chloroform and ether are eliminated through the kidneys and both cause irritation, even in apparently normal organs, but the damage done by ether seems less severe and lasting than that caused by chloroform, hence when dealing with diseased kidneys, select the anesthetic which is least liable to aggravate the condition already present.

Irritation of the respiratory tract is almost an invariable accompaniment, and very seldom associated with chloroform administration. Cases of lung oedema, bronchitis and pneumonia are said to be the common sequelae, but when these conditions arise, in the great majority of cases reported, other factors may be suspected of playing a part. Pedersen in his report of fifteen cases of oedema of the lung secondary to ether says the condition is comparatively rare and from the detailed description of the circumstances attending the administration

of the ether, seems justified in his conclusion that the "manner of administration and other circumstances in the management of narcosis and convalescence are the etiologic factors. The best prophylactic measures are certainly deliberate, uniform administration and the most adequate protection of the patient from draughts and changes of temperature during the stage of perspiration in convalescence."

Buxton commenting on a case of oedema, reported by Pappert, remarks that "it is a curious fact that lung complications usually occur in the practice of surgeons more familiar with chloroform." He believes the trouble often due to the amount and method of administration of the ether. Regarding pneumonia following ether, the author is convinced from cases found in a search of the literature, that there is some bias in the observations and conclusions.

Teuner reports 1020 ether narcoses with 6 cases of pneumonia, no deaths.

Crouch and Corner report 2400 cases in 10 of which temperature and respiratory trouble was present. It is a significant fact that all 10 cases had received nitrous oxide preceding the ether.

Prescott's two cases may be ascribed to exposure, and Nauwerck concludes that his two cases were of septic origin. The suggestion is made by Burns that some cases are due to impurities in the ether.

Regarding vomiting during and after anesthesia, the Committee of the British Medical Association is authority for the statements: "After vomiting is more common with ether than with other anesthetics but is usually transient. Vomiting leading to danger is more common under chloroform, and the more severe prolonged vomiting is more common after chloroform than ether."

It might be added here that to many surgeons ether nausea has lost its terror and has become the exception rather than the rule with ether cases. These results are attributed to careful preparation of patients before etherization, the lessening of the amount of ether and time anesthesia and thorough stomach washing so as to remove the last traces of ether laden mucus from the stomach.

So far, we have considered only the more immediate and apparent effects of anesthetics. There are now known to be certain changes of a degenerative nature following general anesthetics, which may

in the course of time very materially alter our present ideas of the safety of chloroform or ether.

The condition described as Status lymphaticus, a general hyperplasia of the lymphatic glands, associated with enlarged persistent thymus gland and often leading to degeneration of the cardiac centres, presents another problem in anesthesia administration.

Numerous cases have been reported under chloroform and several under ether, one of the latter by Furrer. "The diagnosis of the condition is seldom made except in children who have dyspnoea or laryngisms stridulus." Such individuals succumb very readily to the shock of anesthesia and though rare, some further light might be had by a more careful examination of patients.

The possibility of Sepsis being stirred up, especially along the genito-urinary tract by chloroform is claimed by Bloom who cites four cases which from their history and urinary findings seem to bear out his statements.

It is possible that some obscure deaths in both mothers and infants following a few days after delivery may be due to the chloroform given during labor and closer investigation may cause us to revise our views as to the perfect immunity enjoyed by the parturient woman.

Becker (of Bonn) in his investigations on healthy persons found that "in the majority there arises an acetonuria of varying duration after narcosis." This followed both ether and chloroform. The acetone disappeared as a rule from the second to the fourth day.

The work of Frankel and others seems to have demonstrated degenerative changes in the heart, liver and kidneys following chloroform. "These effects resemble very closely those of phosphorous poisoning and have, like them, been ascribed to the formation of acid in excess in the tissues. They seem to occur only after those substances (of the fatty series in which chlorine is substituted. C H Cl_2 , Ether $\text{C}_2 \text{H}_5 \text{O}$ has little or no effect in producing fatty degeneration, or in changing the proportion of sulphur compounds in the urine." (Cushny.)

Bevau and Favill reporting a death from probable late toxic effect of chloroform, have collected 28 fatal cases due to late effects of anesthetic, most of them chloroform. Out of a total of 400 surgical cases, Kelly reports 46 cases of acidosis (Boston City Hospital) 17 of these presented symptoms on entrance, i. e. before anesthesia, 12 cases,

24 to 4 hours after anesthetic. Ether was used in 10 and nitrous oxide in 2 cases.

This condition described as acid intoxication or acidosis is evidenced by the presence of acetone and Bera-oxybutyric or diacetic acids in the urine, and the characteristic smell of acetone in the breath. The symptoms are those of a profound toxæmia, i. e. vomiting apathy or even stupor alternating with restlessness, failure of the respiration and death.

Other exciting and predisposing factors have been noted, but this condition is most certainly associated with anesthetics and the pathologic changes in the internal organs especially the fat necrosis of the liver are so constant and correspond so perfectly to change in animals produced by these agents as to leave no doubt as to the causal relation.

"Injury to the liver cells is in direct proportion to the amount of anesthetic employed and the length of the anesthesia. This fatty degeneration of the liver with hepatic toxæmia following anesthesia is almost invariably due to chloroform in the fatal cases. Ether (while producing similar general effects) is seldom the cause of a death of this kind. A two hour chloroform anesthesia in man is a serious thing."

CONCLUSIONS.

The choice of a general anesthetic is a serious responsibility and should not be made upon such trivial grounds as the personal comfort of the surgeon or the ill advised suggestion of an assistant.

Except in most urgent cases a general anesthetic should never be decided upon without a thorough examination of heart, lungs and urine, and if possible the blood. Since upon these findings alone can an intelligent selection be based. The indiscriminate use of chloroform is, in the light of our present information, a grave mistake.

In the vast majority of cases demanding general anesthesia, ether is far safer than chloroform.

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Society Reports.

Clinical Society of the New York Polyclinic Medical School and Hospital.

Stated Meeting held March 5, 1906.

The President, Dr. J. J. MacPhee in the Chair.

PARTIAL GASTRECTOMY FOR CARCINOMA.

This patient was presented by Dr. J. I. Edgerton. G. C. M.; male; 41 years of age. Father living and in good health at 78; mother died of stomach trouble, probably cancer, at 56 years of age. Patient had malaria severely 25 years ago, but has had no recurrence. He indulges moderately in tea, coffee and alcohol, and smokes regularly from 15 to 20 cigarettes daily. For the past 13 years he suffered with heartburn, which had been more constant during the past two years, during which time he also suffered from nausea and pain in the epigastrium after eating. During the last few months he had burning pains after eating; was hungry all the time, but afraid to satisfy his hunger, for when he took solid food it remained in the stomach for an hour or so, and then was vomited. On one occasion last winter he vomited some mucous streaked with blood. He began washing out the stomach twice a day on October 4th and brought up greenish clumps of mucous resembling moss. There was no vertigo. His bowels were constipated, and he lost about 25 lbs. in weight during the last few months.

On November 27, 1905, the stomach contents contained free hydrochloric acid; moderate reaction; odor butyric. A mass could be felt over the region of the pylorus, and operation was advised and accepted by the patient. The usual preparation of cleansing the stomach by lavage was performed, and in the operation Mayo's technic was followed. The abdomen was opened near the median line and the gastric artery was doubled, ligated and divided near the cardiac. The gastrohepatic omentum was also doubled and ligated close to the liver, leaving most of its structure attached to the

stomach. The superior pyloric artery was treated in the same manner, and the upper inch or more of the duodenum was freed. With the fingers as a guide beneath the pylorus in the lesser cavity of the peritoneum, the right gastro-duodenal artery was ligated. The gastric-colic omentum was cut distal to the glands and vessels up, to an appropriate point on the greater curvature and the left gastro-epiploic vessels were ligated.

With a running suture of catgut through the seared stump the end of the duodenum was closed. The proximal end of the stomach was doubled clamped along the Miculicz-Hartman line, and divided with a cautery, leaving 1-4 inch projection. Then gastro-jejunostomy was done.

The tumor was found to occupy the pyloric end of the stomach, extending around the whole circumference. No adhesions were present. There was a delay in finding the nearest point of jejunum that could be brought to the stomach wall and in taking great pains to suture the opening in the mesocolon so as to prevent hernia into the lesser cavity of the peritoneum.

His temperature at no time following the operation was above 99.6 degrees F., and there has been no vomiting since operation. He took water in 8 hours and liquid nourishment in 24. His bowels were moved by enemas during the first week, but there was no distension; in fact, no more discomfort than from an ordinary exploratory laparotomy alone. The man has gained about 25 pounds in weight and is at his regular employment again with no discomfort whatever referred to his stomach.

CASE OF MORPHINE POISONING.

The report of this case was presented by Dr. D. A. Sinclair. The patient was 63 years of age, weighed 180 pounds, was 5 feet 6 inches in height, full blooded, with marked organic heart disease. He had been coming to the speaker's office for the past two or three years suffering from alcoholism. He was a periodic drinker, and when first seen, two or three years ago, had been treated along the regular lines for such a condition. He informed the speaker that he had been in the habit of receiving injections of morphine from previous

doctors and that was the only treatment that did him any good. Accordingly 1-4 of a grain of morphine was injected, which the patient reported at the next visit was of no benefit whatever, stating that it was, he knew, a very small amount—nothing like what he had been used to getting. The dose of morphine was very carefully increased to 1-2 grain without any effect, and finally, at the earnest solicitation of the patient and his assurances that he could stand the morphine, the dose was increased to one grain. This injection bore out his statements as to his previous experiences and “just about steadied him,” without producing anything but a very short sleep. His subsequent periodic sprees were treated along the same lines, from 3-4 to one grain being used at an injection. It became so much a matter of course to inject this patient and see no untoward effects whatsoever that there was no hesitation on the part of the speaker about giving him a grain of morphine two or three times a day, according to the exigencies of the occasion. Between the sprees the man, who was of more than average intelligence, not only abstained from alcohol, but did not have the slightest desire for morphine or any other drug.

The treatment detailed above was carried out until the last spree, about a month ago. On this occasion he presented himself, intoxicated, but retaining all his faculties, and begged for an injection of morphine, saying that he would only be put “on the ragged edge” as he expressed it, if he received the usual dose. He stated that he had taken as many as three grains of morphine without any bad effects, but this statement he afterward denied. He had a very important meeting for the next day, and therefore was desirous of securing a good night's rest. One and one-half grains of morphine sulphate were injected into his left arm. In about an hour the speaker was called to him hurriedly, and found him in a much stupified condition. This was about 8 p. m.; a small dose of cocaine was injected and the speaker left, returning about 9 o'clock, when the patient was breathing slowly, about 5 or 6 a minute. He was walked up and down until about 11 o'clock, at which time his respirations had diminished to one in two minutes. Up to this time there had been injected hypodermically 3-5 of a grain of cocain, 4-150 of atropine sulphate,

4-30 of strychnine and 4-100 of nitroglycerine. He had also been given about a quart of strong, black coffee.

The situation being desperate, at the request of the man's family 1-12 of apomorphine sulphate was injected as an emetic and was effectual in about one-half a minute. The patient went steadily into a deep coma, became very blue and was apparently dying. Artificial respiration and the administration of oxygen were then resorted to and the tongue pulled forward with artery forceps. At 1:30 p. m. he began breathing at the rate of about 4 a minute. About a quart of black coffee was given as an enema and at about 3 a. m. he was breathing about 10 time a minute and was conscious.

The oxygen and artificial respiration, together with the cocaine, probably saved the man's life. Two lessons should be learned from this case: (1) not to be importuned into giving any patient a large dose of morphine, even though he is used to it; and, (2) not to abandon hope or relax one's efforts, even when the patient is apparently beyond hope, as this case shows that even in apparently fatal cases life may be saved.

Dr. R. H. Dawbarn opened the discussion of this case which, he said, recalled to his mind a case of morphine poisoning which occurred when he was interne at the Nursery and Child's Hospital. He placed the patient on his back and administered atropine (the first dose of which dilated the tubes) until, from morphine poisoning, the patient developed a case of atropine poisoning. Life was saved by artificial respiration, which was kept up for 8 hours by the speaker and his assistant each taking two-minute turns. Walking the patient up and down was tried, but the exertion seemed only to make the heart weaker. If he were to criticise the treatment of the case under discussion, it would be the giving of depressing narcotics, as after vomiting from an overdose of morphine the patient usually collapse.

Dr. Maurice Packard said that in a series of experiments in which he had been interested, which were being conducted by Doctors Bodine and Jeffries, they were trying to find out from guinea pigs how much morphine would act as an antidote for a given injection of cocaine, acting upon the principle that cocaine is a physiological antidote for morphine. Previously atropine had been used for this

purpose, but atropine and morphine acted similarly, in that both had a tendency to depress the smooth muscle fibres as well as secretion, while, on the other hand, cocain stimulates the smooth muscle fibres and increases secretion, as is shown by the druling at the mouth and the frequency of urination. The best possible treatment, he thought, was the stomach tube. After using it once, however, it must be used every half hour, for the mucous membrane of the stomach will repeatedly secrete morphine. With the stomach tube and the proper use of cocain, most of these cases will end in recovery.

The paper of the evening was read by Dr. E. L. Keys, Jr., and was entitled:

RENAL COLIC.

He said in part: Renal colic is usually considered a symptom of kidney stone; but it is not absolutely pathogomic of stone nor are the position and character of the colic pain always an infallible index of the position of the stone. Indeed so misleading is renal colic in a certain few cases, and yet so rarely is it a symptom of anything but stone, that I think it by no means waste of energy to study attentively some of the cases which have come under my observation and in which renal colic has been a misleading and often a confusing symptom.

The late Dr. Bryson once formulated in a tentative way the theory that stone in the pelvis of the kidney causes pain in the loin radiating down the ureter, while stone at the lower end of the ureter causes frequent and painful urination and pain in pelvis. This distinction holds true in the great majority of cases; yet I have seen one case that was a striking exception to this rule, in that the only pain suffered was from frequent and painful urination, although he had but one stone and that lay in the pelvis of his kidney.

The first patient, a lean asthmatic man, 63 years old, complained of frequent urination. Sixteen years ago he applied for insurance; was refused on account of albuminura. He consulted a surgeon, who stated that he had a surgical inflammation of the kidney. Except for the passage of two calculi from the right kidney, eight and five years ago respectively, and except that he had to rise once or twice

at night to empty his bladder, there were no symptoms until about a year ago, when his urination became more frequent and he consulted an eminent urologist who began and has since continued treating him for chronic cystitis attributed to prostatic hypertrophy. His symptoms have grown gradually worse.

Examination showed the right kidney to be readily palpable, somewhat large and tender; the left kidney could just be felt, but was not tender. The urine was hazy with pus; specific gravity 1016; albumin 1 per cent. by weight; various casts of many kinds; many red blood cells; a total excretion of from 25 to 30 ounces; the bladder capacity was 8 1-2 ounces. The prostate was not enlarged; there was no residual urine. X-ray examination revealed a shadow in the region of the right kidney pelvis, but for various reasons the operation was postponed for 18 months, when the patient's condition was so unsatisfactory that it became imperative.

Upon opening the right kidney, an oxalate stone was found fitting in the upper end of the ureter and was removed through an incision in the pelvis. The kidney itself was considerably dilated and covered with small cysts which contained serous bloody and sero-purulent fluid. It was suspected, because of the nature of the symptoms, that there was a stone in the ureter, but careful search failed to reveal one.

After operation, instead of passing urine constantly, as he had done heretofore, he had to be catheterized until the second day, when he began to urinate at intervals of from 2 to 4 hours. The secretion of urine remained low, and, finally, at the end of three and a half weeks, the patient died from asthenia and failure of kidney function.

It is noteworthy that in this case we were able to arrive at a diagnosis with the aid of an X-ray photograph, while the practitioner who had previously treated it had failed to make the diagnosis because he had not employed this expedient.

In contrast to the above case, in which a patient with stone suffered from a pain that did not resemble renal colic, the second case shows the brilliant contrast of a patient with renal colic, but without stone.

The patient, 58 years of age, complained of repeated attacks of renal colic. He never passed blood, never had any anuria or bladder

symptoms, although since the first attack he had urinated twice at night and every three hours by day. No lumbar tenderness could be evoked by palpation, nor was it possible to feel either kidney. X-ray photographs showed small sclerotic kidneys, but no shadow suggestive of stone. Examination of urine showed many pus cells, but no bacteria. Macroscopically there was no pus and very few blood cells. He was given an alkaline mixture, advised to drink very freely of water and to exercise to the limit of toleration; and I believe that in January, 1906, he had no further renal colic.

A detailed history was presented of a patient who suffered from most violent attacks of renal colic brought on by digestive causes. A carefully restricted diet, much exercise and water and the administration of beta-naphthol, bismuth and salol caused a cessation of these attacks.

In further contrast to this case was Case V, in which the colic caused by digestive disturbances was intestinal and not renal, although the pain was precisely that of renal colic.

The last history presented by the speaker was an example of a class of cases which he considered very important. They are relatively infrequent and cause objective symptoms absolutely characteristic of renal stone; yet a careful examination will reveal the fact that they suffer from nothing more than seminal vesiculitis.

PROPER MEDICATION AND CHEERFUL COMPANY.

During the past two months we have met with more lagrippe than anything else, and the number of cases in which the pulmonary and bronchial organs have been very slightly or not at all involved, has been greater than we have noted in former invasions. On the contrary, grippal neuralgia, rheumatism and hepatitis have been of far greater frequency, while the nervous system has also been most seriously depressed.

more and more necessary to watch out for the disease in disguise, and to treat these abnormal manifestations; consequently we have relied upon mild nerve sedatives, anodynes and tonics rather than upon any specific line of treatment. Most cases will improve by being made to rest in bed and encouraging skin and kidney action, with possibly

minute doses of blue pill or calomel. We have found much benefit from the use of antikamnia and salol tablets, two every three hours in the stage of pyrexia and muscular painfulness, and later on, when there was fever and bronchial cough and expectoration, from an antikamnia and codeine tablet every three hours. Throughout the attack and after its intensity is over, the patient will require nerve and vascular tonics and reconstructives for some time. In addition these therapeutic agents, the mental condition plays an important part, and the practitioner must not lose sight of its value. Cheerful company, change of scene and pleasant occupation are all not only helpful, but actually necessary in curing the patient.

THE MEDICAL PHASES OF THE IMMIGRATION LEGISLATION.

V. G. Heiser says that the act of 1901 was the first under which immigrants suffering from certain mental or physical conditions were absolutely excluded, and the law provided for the first time for the medical examination of all arriving aliens. The medical features of the immigrant legislation consist of two simple divisions, the first for those suffering from afflictions for which they are absolutely excludable, and the second for those suffering from conditions which may cause them to be likely to become a public charge. From year to year it has been found desirable to augment the list of affections that come under both divisions of the law, and the last act pertaining to immigration, passed in 1903, still further increased the list of absolutely excludable diseases. In discussing the maladies on the absolutely excludable list which give rise to the greatest number of rejections, the author says that trachoma easily ranks first, and favus is also of importance. Leprosy, active syphilis, and cases of tuberculosis with bacilli in the sputum, are also on the list. Epileptics, idiots, and the insane are specifically mentioned by law. The second class of diseases is the heart, hernia, chronic rheumatism, nervous affections, malignant tumors, defective eyesight, senility, etc. Persons suffering from temporary conditions are cared for until well in hospitals at the expense of the transportation company bringing them in. Heiser is in favor of the enforcement of the medical clauses of the immigration law in the Philippines, both from a humanitarian and a practical standpoint.

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THE ALABAMA MEDICAL JOURNAL, Birmingham, Ala.

Owing to the death of Dr. LeGrande, the beloved editor of this journal, it has been very difficult to make the necessary arrangements for the publishing of the magazine. Considering the cause, we hope our readers will pardon this seeming remissness.

It is hoped that arrangements will soon be perfected which will ensure long life of the Journal and on a larger scale.

The medical press is for the doctors alone—and for this reason even medical reform movements must reach the laity through means of the lay press.

Just now the people are being aroused as to the extent and evils of the patent medicine business; and many wholesome facts are theirs for the reading. Suppose we doctors help this educational movement to the best of our ability. There are more people than we imagine who are addicted to the patent medicine habit; so do not let us suppose that all this applies

in no way to the people that we know and associate with. Let us lose no opportunity to at least discuss, when we can, this subject—each adding his personal influence towards the destruction of this curse, while we are on this subject.

It does seem a pity that we doctors are so powerless to protect our ignorant brother from those human vultures who prey upon the benighted sick.

It does seem a pity that the intelligent business men of this enlightened country and age will, for the sake of a little more money, a little more profit, allow our daily papers to be used as a net and a snare to make fat these human Harpies. That an editor or an owner of a paper in this country should be glad to hire himself as the mouthpiece for these heartless frauds—that he should accept their blood money to sound their lies to the credulous ignorant—it is a condition almost inconceivable.

What defense the proprietor of a paper can offer for his position is worse than no defense. He cannot plead ignorance as to the character of these cannibals or ignorance as to the harm they do. He cannot fail to know that their very life depends upon the lies his paper spreads broadcast for them.

And knowing all this, his only answer remains that it is his business to print things for money. It is the robber's business to rob for money—the murderer's to kill for money—the perjurer's to lie for money. The proprietor in printing these things for money, knows that he is printing lies; knows that he is helping to deceive that part of our populace that can least afford to be deceived—knows that he is playing the jackal to these twentieth century cannibals—and knows that through his means they flourish and are let live.

Suppose we mention these facts to our friends, the owners and editors of our daily papers, and see if we cannot squelch the life out of these blood-sucking vampires—the charlatans in our midst.

Death of Professor Curie.

Prof. Pierre Curie, the discoverer of Radium, was run over and killed by a vehicle in Paris on the afternoon of April 19th.

Prof. Curie, instructor at the Sorboune since 1900, was born at Paris May 15, 1895. Having finished his studies at the Sorboune, he became director of studies in the school of physics and chemistry of the city of Paris, and in 1895 was appointed professor. He married Mlle Marie Skolowdowska, a native of Poland, and teacher in "The Higher Normal School for Girls." This lady had completed the course of study at the Sorboune, where she gained many prizes.

After her marriage she greatly aided her husband in the researches which resulted in the discovery of Radium, which was announced about three years

ago. This discovery was hailed by the medical faculty as a powerful factor in the treatment of certain diseases; but unfortunately its great scarcity and enormous price have prevented the development of its use.

It may be said that the premature death of this brilliant scientist has struck a terrible blow to humanity. It is sufficient to consider the possibilities to which the new element opened the way, in order to understand the loss that mankind suffers from the extinction of so mighty an intellect.

We know nothing of the work in which Professor Curie was engaged at the time of his death; but his unceasing devotion to science, and his supreme contempt for all official and social distinctions lead the scientific world to consider that he and his wife were on the way to greater and more sensational discoveries. This remarkable man who had refused the Cross of the Legion of Honor, as something useless, likewise refused a half million francs offered for a few decigrams of Radium, simply saying that he needed it in his investigations. He accepted the Noble prize and certain State contributions sufficient to enable him to carry on his work.

An interesting fact to note is that as a child Professor Curie was so poor a scholar that his parents had to procure a private tutor for him, after withdrawing him from school. During all the years of school and college, his progress was checked by the necessity of studying the various heterogeneous branches required. It was only when free to devote himself to his favorite pursuit that his genius manifested itself.

No one will be surprised to learn that the mental faculties of Professor Curie were so absorbed that he was generally a complete stranger to what was passing around him. And his death is due to that circumstance.

CATARRHAL DISEASES OF THE NASO-PHARYNX.

By H. M. Marsh, M. D., Auburn, Ky.

As the season is now fast approaching when this class of diseases take up most of the physician's time and is the cause of more suffering among more people than all other diseases combined, I wish to say something in regard to a simple and effective treatment of this class of diseases. In this climate this is the commonest of all diseases, there being very few who do not suffer from it in some of its various forms. Chronic nasal catarrh is in most cases a result of repeated attacks of acute catarrh or "common colds." In this short article it is not necessary to go into details or take up time or space with causes and symptoms; everyone is familiar with them. My object here is to simply give my plan of treatment plain and simple, yet eminently successful. In the treatment of these cases every physician is well aware of the fact that cleanliness is in most cases all that is necessary for a cure.

Every physician also knows that in order to have a perfect cleansing agent it must be both alkaline and antiseptic. My success in treating these diseases, viz., acute and chronic nasal catarrh, including ozena, acute and chronic tonsillitis, pharyngitis, catarrhal deafness, etc., has been due almost entirely to the systematic and thorough cleansing of the mucous surfaces with Glyco-Thymoline. I have been using this ideal alkaline antiseptic in my practice for years, and have never been disappointed in it.

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NOTE ON ADMINISTERING QUININE.

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Selected Articles.

The Etiology of Relapses in Syphilis.*

By J. NEUMANN, M.D.

VIENNA, AUSTRIA.

Although syphilis is one of the best known diseases and has been made the subject of many researches both from its anatomical and from its clinical aspects, one of its most characteristic peculiarities, its relapses, using the term in its widest sense, has not yet been explained adequately from an etiological point of view. It is, therefore, easy to understand that the origin, the location, and period of occurrence of syphilitic relapses should be made the objects of frequent researches. The subject has recently been discussed by Lesser,¹ and the case which served as the text for his disquisition as well as the practical conclusions to be drawn from it have impelled me to take up the matter again although I have already on several occasions spoken of it. In my last study in this connection,² the theories of the etiology of the relapse in syphilis are discussed and their pros and cons set forth in detail.

In regard to Virchow's hypothesis, quoted by Lesser which was probably the first theory founded on an anatomical and clinical basis, it must be admitted that it cannot be regarded as absolutely correct even for the earlier relapses in which a contamination of the blood stream can be taken for granted, the condition which Virchow evidently had in mind, since his theory assumed that the lymph glands formed the main repositories of the syphilitic virus from which intermittent infections of the organism took place. For relapses often occur in syphilis without demonstrable swelling of the lymph glands, and enlarged glands often persist for long periods of time without any relapse. But although there is no doubt that syphilitic glands are foci of virus from which this may penetrate into the juices of the body and evoke a new eruption in any region, repeated histological researches have demonstrated that every portion of the body which has been the seat of a well developed syphilitic product retains the residua of this, and during many years, like the lymph glands, may serve as a depot of virus which, under suitable conditions, may give rise to a relapse in situ in the neighborhood, or in a

*Address delivered before the 15th International Medical Congress, Lisbon, April 19-25, 1906.

more remote region. The traces of syphilitic products which persist after the disappearance of the clinical manifestations are the only demonstrated sources of the temporary contamination of the blood, that is, of the relapse. This has been proven through relapses in situ which are sometimes often repeated and which may occur in consequence of definite irritations, or spontaneously. That these deposits in the course of the disease may diminish and finally completely disappear is in accordance with their biological character. In this way a sufficient explanation is furnished of the progressive diminution in frequency and intensity of the lesions, the unsymmetrical nature of the manifestations, the diminished or totally lost virulence, and the entire disappearance of relapses which is in proportion to the period of duration of the disease. I wish to emphasize the fact that the syphilitic lymph glands owing to their structure and function are especially well adapted to be repositories of the syphilitic poison. Lesser makes the following objection to this and to Virchow's theory: "If we regard only the manifestations on the skin, which are the most conspicuous and therefore the best known, the typical course of events is that at first a symmetrical exanthem appears, which in the beginning is spread over the entire or almost the entire body but is later on followed by less extensive but still symmetrical relapses, until finally, in the latest stages, isolated, unsymmetrical lesions appear. If these relapses are produced by the liberation of the poison contained in certain foci why do not the later and latest lesions display the extensive and symmetrical localization of the first eruption, which is formed as the result of the universal dissemination of the poison present in the circulating blood?" Without reflecting on Lesser's emphasis on the symmetry of the first and earlier syphilitic eruptions, I should like to remark that this argument would justify the conclusion that in time the syphilitic virus, quantitatively and qualitatively, and also the conditions of origin of the syphilitic manifestations, have undergone an alteration which would lead to the asymmetry and isolation of the lesions which are referred to by Lesser. It does not prove, however, that, so long as a relapse in situ is not in question, the virus causing the unsymmetrical and isolated lesions cannot arise in a neighboring or more or less distant lymph gland. It is not necessarily, but may be the case that the syphilitic virus may remain longer precisely in the lymph glands until through some cause it passes into the lymph stream, so that it seems plausible to believe that the lymph glands may also have their part in the virus which gives rise to the late relapses, if they do not furnish it entirely. Very remarkable and difficult to explain are those re-

lapses which sometimes occur after a free interval of one or more decades. It must be admitted, however, that the existence of latent intervals of ten, fifteen, or more years has not been indubitably proven. Syphilitic symptoms may entirely escape even the most careful observation, provided this is not continuous in the strictest sense of the word, or their specific nature may not be recognized. This is especially true of symptoms which are frequently found in other conditions, such for example as anemia with all its concomitants and sequelae, or visceral affections which, although depending on a syphilitic basis, may be ascribed to other causes. Furthermore, manifestations unaccompanied by striking symptoms may attract the patient's notice but slightly or not at all and disappear spontaneously, so that they never come under medical observation. There is no doubt that the putative long periods of latency arise in this way, although I would not deny their existence absolutely. Unna's theory which considers every syphilitic relapse as a relapse *in situ* does not help us over the difficulties attending the solution of the question of periods of latency lasting three, ten, fifteen, or more years. It may, in addition, be regarded as an accepted fact that relapses occur also in portions of the body where no lesions occurred originally, although the relapse *in situ*, as I long ago and since then frequently have, noted is much commoner than was generally considered formerly or even at present. I believe that in order to demonstrate the frequency of relapse *in situ*, which is of importance for the present question, the procedure advocated by Hjetman is to be warmly recommended, at least for the organ that is most suited to it, the skin. The dicta of Lang which are also cited by Lesser are, as a matter of fact, deductions from the clinical course of the syphilitic process in its most pronounced phases. An objective explanation of the pathogenesis of the syphilitic relapse, especially the late relapse after very long periods of latency, is, on due consideration, not afforded by them. If, in view of Schandinn's observations, one considers the powers of resistance and the length of life and of virulence of many pathogenic organisms—that, for example, the spores of anthrax after remaining in the soil for more than ten years entered the animal body again may unfold their full activity; that Hjelmman was able to demonstrate pathological products in the excised scar of a chancre of the frenulum thirteen and a half years after infection—it does not appear astonishing that the organism of syphilis after years of inactivity in an encapsulated, inveterate, syphilitic focus under the influence of favorable conditions may reacquire its former virulence, multiply, and, becoming active again, give rise to new lesions. That at the present

moment we are unable to offer an explanation of the origin of late relapses of syphilis is, as Lesser has correctly observed, owing to our ignorance of the nature of the syphilitic virus and the causative agents of the disease. But I should like to point out that in the chronic infectious diseases, especially in the one which presents the closest analogy to syphilis, tuberculosis, in spite of our more accurate knowledge of the causative agent the explanation of the origin of the primary infection and of the relapses is still far from complete. So long as we remain in ignorance of the relations of the incitants of disease to the biological processes of the body we shall be unable to solve the questions in a satisfactory manner.

In regard to Lesser's case I refer to my observations¹ on the histological findings, in which the persistence of pathological products after the disappearance of the manifest clinical alterations has been proved in unimpeachable fashion. Lesser's case and that of Jadassohn cited by him, as well as one of Lesser's in which the roseola rings surrounded the areas of leucoderma on the neck, impel me to refer to an observation that I have repeatedly made and called attention to: that the anatomical changes persisting after the disappearance of the clinical manifestations usually extend far beyond the area of the changes visible externally. In consequence of this the cases cited are practically relapses in situ in which a distribution beyond the original area limits may have taken place. Jadassohn's statement, "one receives the impression that a virus is distributed irregularly from the central focus," is a fact that has been established by my own microscopical studies and later by those of others. The irregularity is due to the fact that the larger portion of the disease germs is buried in the adventitia and in the perivascular spaces of the irregular disposed vessels.

In passing it may be remarked that in cases of relapse in situ the deeper situation which heretofore has been considered as characteristic for the late syphilitic relapses in general—for the skin in the subcutaneous tissues, for the mucuous membrane in the submucous tissues, for the periosteum in the superiosteal tissues—is to be explained on the ground that in the recent syphilitic product the histological changes also extend deeper than might be inferred from the clinical manifestations.

In regard to the objection that has been made, "that if all the relapses, including the isolated and unsymmetrical ones occurring in the latest stages, are produced through a new infection of the blood from encapsulated foci, why do not the later and latest relapses exhibit the extensive and symmetrical disposition of the first eruption?" it may be said that

for the production of relapses in situ circulation of the syphilitic virus in the blood is not necessary. That local stimuli, even of a purely functional nature, may suffice to effect this is a well-known and universally recognized fact. In this connection, I refer again to the relapses occurring in the mouth and pharynx where, in consequence of mechanical, chemical, thermic, and functional irritations, not only the cure of the syphilitic manifestations is protracted but the relapse in situ is also a common occurrence. In those portions of the mucous membrane which were occupied by a circumscribed erythema or in the immediate neighborhood, a papule is formed which later becomes an ulcer, and after the cicatrization of this, sooner or later a gumma forms, as has been shown by observations. I recall the cases of Portalier,⁵ in one of which an ulcerative syphilide relapsed during five years in the same spots; in another a psoriasis palmaris returned again and again during ten years in a physician who had infected his finger. In the same connection I would mention an interesting case recently reported by me in which the original lesion formed papules on the posterior pharyngeal wall. During a space of five years at varying intervals ulcers appeared at the same spot followed by ulcerating gum-matta which destroyed the soft parts and then the anterior segments of the three upper cervical vertebrae until the cervical cord become involved and death resulted. In cases of late relapses in situ it follows from what has been said that there is no difficulty in explaining the asymmetry and the singleness of the lesions. But, as I have already observed, my clinical experience shows that on the skin, which is the most studied and most accessible organ, late lesions also occur in places in which originally no syphilitic manifestations developed, although, as I should like to point out, the latter in most cases are relapses in situ. Among forty-eight women who had chancres of the cervix and who came repeatedly under observation on account of various conditions, twenty-five, or fifty-six per cent in the space of from a few months up to fifteen years, had relapses which were located in the situation of the primary lesion. This figure might be considerably increased if only the relapses occurring five, ten, or fifteen years after the infection should be considered. Nevertheless there remains a considerable number of late relapses which are situated in regions where originally there was no syphilitic lesion. Such relapses as these are far from easy to explain in regard to their localization, singleness of occurrence, and special conditions of formation. I consider that Lesser's view in this respect deserves quotation verbatim: "Accordingly we assume that in the eruptive stage of syphilis the entire body is flooded with the virus of the disease; that then portions of the poison remain at first

in a uniform manner in numerous parts of the body from which, in the further course of time, relapses originate, but that the longer the interval that has elapsed since the infection more and more of these remaining germs perish and finally disappear entirely. This affords a ready explanation for the fact that...the first relapses are numerous and are symmetrical, but that as time passes the eruptions become scantier and more irregular in distribution, in conformity with the isolated location of the germs that still exist and develop. If, finally, very late relapses occur, these are usually solitary or form only a few foci because only very few germs possessing vitality still remain." From this it may be seen that Lesser agrees with Unna in regarding the late relapses of syphilis—or to use the ordinary terminology, the tertiary lesions—as newly developing remains of old syphilitic products persisting from the years of the secondary or even of the primary stage. This view, which, in its essentials, has already been expressed by me,⁶ is, strictly speaking, true only for relapses in situ. In the formation of relapses of the other category, the metastatic variety, probably the remains of the early syphilitic products also furnish the carriers of the syphilitic germ, but these must first effect an entry into the lymph or blood circulation, and must possess a degree of virulence which renders them capable of producing a new lesion when present in sufficient numbers on suitable soil.

The following considerations show that the germs of the metastatic relapse are formed rather by the remains of the early syphilitic lesions persisting for years, than by a circulating syphilitic poison continuously present in the blood or tissue juices. If there were continuously present in the blood syphilis germs in such quantity and of sufficient virulence to be able to produce syphilitic lesions in any portion of the organism, then some syphilitic manifestations would have to be present in the body at all times. This, however, is not true as has been shown by the most careful observations. Virchow, himself has said⁷ that "the conception of a chronic dyscrasia by no means involves the necessity that the blood at all times contains disease products; on the contrary periods of infection and periods of freedom from this (in the blood) may alternate with each other." I should not like to affirm that in the latent periods, even after the first two years following infection, the blood stream is absolutely free from syphilis germs, but I assume that during the period of latency any germs that may be circulating in the blood stream are not capable of evoking a lesion in the body itself, either through quantitative or qualitative weakness or both of these together. When I say in the body itself, I do this in view of the frequently observed fact that a pregnant woman with latent

syphilis who does not exhibit any symptoms of the disease during her pregnancy brings forth syphilitic offspring. This fact that from the blood stream of the mother with latent syphilis, germs which have passed into the fetus may produce severe lesions although they do not give rise to any manifestations in the body of the former; the fact that individuals with latent syphilis who do not display any symptoms may transmit syphilis through an inconspicuous fissure by contact, causing a typical chancre to develop; that, therefore, germs which in the first organism were unable to produce a lesion evoke typical changes in the second, among other things lead to the conclusion that in the tissues themselves certain conditions must exist in order to cause a syphilitic lesion to be developed. This is what is ordinarily called "a predisposed or suitable soil" also "*locus minoris resistentiae*, lessened resistance," but this is only an excuse for our defective knowledge. The conditions which control the localization of the metastases in a single organ or portion of an organ are still unknown—which, by the way, is also the case in other infectious diseases. I have mentioned these facts because they serve as sign posts in the darkness of the origin and the localization of the scanty and isolated appearance of the metastatic, late relapses of syphilis. As I have already expressed my opinion concerning the value of deductions from analogy, and have therefore protected myself against the accusation of regarding these as adequate proofs, I observe that if we keep in mind for example the route which the syphilis germs must travel in their passage from the organism of the mother into that of the fetus we shall come to the conclusion that there is justification for the view that the syphilis germs which have entered the blood stream from some residual focus are capable of traveling long distances in the body. In this way the first condition of the production of metastatic relapses of syphilis is shown to be a possible and real occurrence; furthermore these facts indicate that the small amount of the syphilis germs which pass into the blood from the residual foci is probably the chief cause of the scanty and isolated appearance of metastatic, late relapses; but it is not the only cause, for, as has been stated above, in the case of an infection produced by a small fissure on the lip of an individual with latent syphilis the number of syphilis germs transmitted—which still is able to produce a chancre at the place of contact—is very small, while the much larger number of germs present at the same time in the infecting organism does not give rise to any manifestations. There must, therefore, exist in the tissues themselves certain conditions, and this is the second factor in the explanation of the asymmetry and singleness of late syphilitic relapses.

If, furthermore, we consider the well-known fact that in individuals with latent syphilis a syphilitic lesion is to be produced by inoculation even with highly virulent syphilitic secretion only after the application of considerable irritation—that is the production of suitable conditions in the tissues—it will be apparent that in an organism which has for a long time been the seat of latent syphilis the situations in which the conditions necessary for the development of a syphilitic product exist are few and far between.

Herewith I believe that I have explained as well as possible and in the briefest form the questions constantly arising in the nosology of the relapse of syphilis, especially in late syphilis. The evidence furnished by the histologically demonstrated cell-rests as persisting signs of healed syphilitic lesions has been recognized by the majority of authors. Only isolated writers deny this testimony, such for example as Caspary,⁸ who, in discussing persisting signs of hereditary syphilis, has stated that my teaching required corroboration. In opposition to this, Galewsky, Rille, and Meissener have brought forward further proofs in favor of my explanation of the relapse in syphilis. Galewsky has laid stress on the development of late manifestations in old scars, particularly at the site of the chancre, as has now been universally recognized. Meissener points out that in syphilitic infection shortly after the appearance of the primary lesion, before the development of the roseola, the vessels in cutaneous areas far distant from the chancre already show changes which disappear again after antiluetic treatment. It is true that Jadassohn considers that the assumption of residua is not necessary in the explanation of local relapses, believing that the well-known facts of provocation suffice in this respect, and says that scars also are more easily affected by irritation and may give rise directly to the provocation. Jadassohn has often found collections of cells in old scars, but affirms that ordinarily we have no criterion for the cell infiltrations occurring in normal skin.

This question is closely associated with that of the duration of the infective stage in syphilis, a topic which was discussed at length in the Third International Dermatological Congress in London in 1896. Hutchinson believes that it has been proven that, during the primary and secondary stages the blood and all other secretions contain the syphilitic virus and that transmission to other persons is possible. He considers that after two years have elapsed the syphilitic poison has disappeared from the tissues and fluids of infected individuals, and the danger of transmission is over. He permits patients to marry two years after the appearance of the chancre, and usually does not pay much attention to mod-

erate relapses appearing after this time (!). Hutchinson mistrusts in general the reports to the effect that a man has transmitted syphilis to his wife ten or even more years after infection. The period of hereditary transmissibility appears to be longer in women than in men, and the ability to transmit infection also appears to persist longer in women. He also believes that hereditary or general transmission during the tertiary period, excepting in extremely rare cases, is out of the question. This view of Hutchinson's must now be regarded as incorrect. The same author considers that mercury attacks the syphilitic virus and destroys it, and that secondary symptoms appear when the administration of the drug is interrupted. Campame calculates the period of infectivity of a syphilitic individual as three years. Lassar^o is of the opinion that the question of contagion has not been sharply enough differentiated from that of infection. Contagiousness in syphilis may be lost without effect on the infectiousness, although the reverse is hardly likely. From a single papule an indefinite number of infiltrations may result, which probably can be explained only on the assumption of permanence of infectiousness. In view of the different forms of the disease it is almost impossible to determine in what stage a given patient may be. There is much in favor of the view that infectiousness lasts throughout the entire course of the disease, although on the other hand it cannot be denied that the danger of contagion decreases as the disease progresses. Several observations made by Lessar prove that syphilis may remain contagious even in very late stages; for example, transmission being reported ten, twelve, fifteen, or sixteen years after infection. The problem of the capacity for infection in syphilis has not yet been solved. Feulard has stated that he does not counsel marriage to a syphilitic before the expiration of the fourth year, and that in rare instances hereditary transmission has occurred ten years after infection. Tarnowsky was able in a series of 1,000 syphilitic patients to demonstrate typical specific symptoms in 802 during the first five years after infection, in 176 after the first five years, in 26 after ten years, and in 5 after fifteen years. A syphilitic individual can therefore transmit the disease fifteen years after infection. Blaschko has observed a case in which a husband infected his wife five and a half years after acquiring a chancre.

These observations accordingly appear undubitably to explain the occurrence of relapses. The proliferated cells are, however, to be regarded only as the carriers of the virus and not as the virus itself. Through the discovery of *Spirochaeta pallida* by Schaudinn the entire question has received a positive basis, and it will not be difficult in future to extend the

researches that heretofore have been devoted to pathological products, to the study of the spirochetes. In this way the hopeful prospect is afforded that in the future one of the most important questions—that of the nature of the relapse—may be solved.

Conclusions. (1) The late syphilitic relapses, the relapse in situ as well as the metastatic relapse, have their origin in the microscopically demonstrable syphilitic products, including the syphilitic lymph glands, which persist after the disappearance of the clinical manifestations. These may exist a very long time, even more than a decade.

(2) The complete elimination from the organism of all the germs of the disease as promptly as possible therefore follows as a fundamental indication in the treatment of syphilis.—Medical Record.

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The Patent Medicine Evil.*

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The ambition of all men is to be successful, however, the conception of success varies with the individual. No profession has achieved the success of the medical profession, for the reason that its members have always laid aside their own interests and worked for those of humanity in general. We all know that if an epidemic of small-pox, diphtheria, or yellow fever should gain a foothold in our city that from a financial point of view we would be benefited; yet every one of us is more than willing to take time

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from his work and devote it to the prevention of any disease that threatens the lives and the health of our fellow citizens without remuneration. It has been instilled into the medical man from time immemorial that an ounce of prevention is better than a pound of cure, and with this as a motto, we have made plagues a thing of the past. We have learned to cure many diseases that before were incurable. There are many that we are still battling with, but these in time will be overcome like those in the past, and although the longevity of the human race has already been markedly increased, this increase is bound to continue as time goes on. We have won many battles in the past. Often the struggle has been hard and vicious, but success has invariably been with us, for the reason that we were striving for what was right.

I desire to call to your attention to-night a plague that exists among our people. One that has wrecked many homes, that is supported by many newspapers, and has millions back of it to be scattered among the legislatures of the Union, in order that it may exist. I speak of the patent medicine epidemic. To overcome this it is absolutely necessary to have a united profession. Without this support, the battle is lost; with it, we can conquer any evil that destroys health and happiness. This evil is one that assists the medical profession in a financial way, for by its existence many chronic sufferers are produced who must be relieved in time by medical men, yet ninety per cent. of the laity are of the contrary opinion, and believe that these medicines keep many patients from seeking medical advice. To remedy this evil we must proceed in a sensible way, explaining to our patrons and friends the dangers of taking drugs which produce effects they are not aware of. The secret of nearly all patent medicines is to produce an immediate effect, which is lost as soon as the drug is stopped, and in this way causing a desire on the part of the patient for this effect to be continued, and from this desire many bottles are consumed, and the manufacturer gets his profit. Consequently, the principal ingredient of these remedies is either whiskey, morphine, cocaine, or acetanilid, the first three of which will cause a drug habit if continued for any length of time; the last a powerful heart depressant that has caused many deaths.

We should teach the people that if they want a drink of whiskey, that it is much better to procure it from a reputable dealer, than pay double the amount for "rot gut," and then attempt to humbug themselves, their family, and friends into the idea that their health is failing, or that "Peru-na" or some like nostrum is essential for their well-being. Mothers should know that morphine will stop almost any cough temporarily, but at the same time it locks up the secretions, and leaves their infants in a much worse condition than before this harmless cough remedy was taken. Nearly

every one at times suffers from headache, and there is always found a friend or knowing druggist who will recommend Bromo-Seltzer, or some other such remedy that will relieve in a short time. True it will relieve, but he has taken enough acetanilid to make the strongest heart grow faint, and it is here that a few sudden deaths are produced. That some few of these ingredients are beneficial for certain ailments, no one will deny, but how certain of our preachers and public men will come out in print and recommend these remedies for all diseases of the heart and kidneys, etc., is more than I can understand. Some few of these statements are given to the manufacturer on account of relief received, many are paid for, some are gotten through political traffic, and many are absolutely false.

Any one with moderate education and sense knows that there are many different forms of heart, kidney, or stomach trouble; that all of these diseases have different stages, and that remedies that are applicable to one variety are contraindicated in another, and what is beneficial at one stage of a disease is injurious later on; and yet they pass these remedies off on the public as a specific for all, and the public allows this fake to go on, knowing full well that they are humbugged, and that thousands upon thousands of happy homes are sacrificed each year on account of this nefarious practice.

Of late there has been going on in this city a crusade against the bill posters of a certain theater placing in conspicuous places their flaring prints of females dressed in transparent costumes. It is true that these advertisements are suggestive and create a train of thought in the youth of the city that is not to be desired, and yet there goes into every home the daily newspaper containing patent medicine advertisements, describing the peculiar diseases of each sex, calling attention to "sure cures" for both male and female of loathsome diseases. Often we see a remedy for suppression of the menses, or in other words, a medicine that will produce abortion, and there has appeared the cut of a certain syringe for the prevention of conception. These disgusting articles are given prominent places, so that it is impossible for our daughters, our wives, or sisters to fail seeing them. These humbugs, with their prominent and often filthy advertisements, have been perpetrated on the public too long. The time is now ripe, it can be stopped, and will be, if our profession will only present a united front.

The success of a patent medicine does not depend on the virtue of its ingredients, or the apparent cure of disease. It relies on getting men with money to back it, then thousands and thousands of dollars are spent on advertising. Each week or month a more conspicuous ad. is placed, promising a free bottle for trial; then the mischief begins, the innocents receive their bottle, religiously take it, of course feel better temporarily from the

stimulating effect of the alcohol, strychnia, or morphine. Having a desire to keep up this good feeling, he sends for more, and in the meantime informs his friend of the wonderful effect of this remedy. In a few months he says he cannot live without it, and so indeed he cannot; but he should not think that he is alone in his affliction, for there are many millions who cannot live without their booze.

The laws of this state make it a crime to perform abortion, except as a last resort for the relief of certain pathologic conditions, and yet every day there are published in our daily papers advertisements that are guaranteed to accomplish this act; and strange to say, these corporations are never prosecuted. The laws of the state also prohibit the selling of alcohol, unless a license is obtained; and yet it is possible to go into any drug store, and even in many cross-road country stores, and buy patent medicines that contain anywhere from ten to forty per cent. of alcohol. That this condition of affairs exists is a blot on our national honor, that these corporations are backed by millions and owned by men who are highly respected in their communities is a public disgrace, and that they are allowed to break state laws and impose on the ignorant and unsuspecting is a crime that needs the most stringent of measures for its correction.

The reason that this state of affairs is allowed to go on is first due to the fact that they have an almost unlimited capital to use for illegitimate purposes; and secondly they scatter many millions among the press for advertising, provided they say nothing that is detrimental to them. A few high class papers will not accept their advertisements, and the recent articles on the subject in Collier's and the Ladies Home Journal have had an inestimable effect for good in educating the public as to how these frauds are carried on, and the great harm that has been done in many instances. Such articles in lay papers will have a most beneficial effect in educating the public as to how these frauds are carried out, how they obtain their testimonials, and by printing their analyses it shows how little of merit is in the ingredients. Unfortunately, these papers that are clean enough to refuse patent medicine advertisements and are bold enough to war on them, are few and far between, and for this reason a large majority of the consumers never see these articles. It therefore remains for us not only to educate the public, but to see that laws are enacted to prevent this great fraud that is going on in our midst.

I desire to-night to suggest what I believe will be a most efficient remedy in this state. This Academy of Medicine is the largest county organization in the state. We have as members men who are known all over the country, and any recommendation that is made by this society will be treated with great respect by the state society, the legislature and the public

at large. I therefore would recommend that this society instruct its delegates to the State Association as follows:

That the State Association recommend to the Legislature of this state the passage of a law that compels the manufacturers of patent medicine that operate in this state to place in a conspicuous place on the label of every package, all the ingredients, and also the amount of each ingredient to the dose of the medicine; also, that those that contain over seven per cent. of alcohol, or any amount of morphine, opium, chloral, cocaine, strychnia, ergot, oil of cedar, or acetanilid shall be printed in red letters. That if they fail to comply with this law or make a false statement on the label, either as to ingredients contained or the amount of each ingredient to the dose, they shall be prohibited from operating in this state.

It is true that if this was recommended by the state society, and no further steps taken, it would never be passed; but if a committee from each county society is appointed by the state society to see the senators and representatives from their respective counties, and, if possible, this committee should be made up of the family physicians of the representatives and senators from each county, and tell them of the evils of the patent medicine traffic; in spite of the united press, the thousands of dollars that will be spent in lobbying by the manufacturers, it will become a law. A competent lawyer will be needed to draft a bill to this effect, and the state society will have to appoint a chairman of a committee for each county; and this chairman, after he sees who will be the senators and representatives from his district should appoint a committee to assist him in placing before their representative the evil of patent medicines, and the necessity of public protection from them. One state has passed a law to this effect, and in a few other states it is now being fought out in the legislatures. Our duty is clear, let us all put our shoulders to the wheel, and protect our fellow Tennesseans from this pestilence.—Southern Practitioner.

The Radical Treatment of Uterine Cancer; Its Present Results and Future Outlook.*

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THE IMPORTANCE OF CANCER IN GENERAL.

Cancer is one of the most important and serious problems of medical

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science to-day. There are two factors outside of the malignant and distressing nature of the lesion which give rise to this importance: First, the increase of our practical knowledge regarding cancer and its therapeutics has not kept pace with the general advance of medical knowledge in other branches; second, the number of cancer cases throughout the world is apparently rapidly increasing.

To substantiate the first proposition, that the increase of knowledge concerning cancer has not kept up with the increase of knowledge in many other branches of medicine, I will merely ask you to compare the magnificent results which we are able to obtain in the treatment of many other diseases with the meagre results yielded by our treatment of cancer. The last fifty or one hundred years has entirely changed the aspect of many branches of medicine. To cite briefly a few instances: Vaccination has been proven almost an absolute prophylaxis, and smallpox has lost its terror. The therapeutic triumphs won by the use of antitoxin make diphtheria a far less serious problem than it was fifteen years ago. While we have no specific treatment for tuberculosis or typhoid fever, yet our exact knowledge of the causes of these diseases gives us prophylactic weapons of greatest value. The results obtained in malaria, yellow fever, and many other medical diseases, and the victories won in some divisions of the purely surgical field, it is hardly necessary for me to mention.

But in the treatment of cancer, we have made no such advances. Fifty years ago a case of skin cancer was occasionally cured. To-day we cure more cases, and cases of a different sort, but when we compare the number of cases cured with the total number of cases in existence, the percentage of those saved is woefully small. In general we may say that to-day the existence of a cancer indicates the death of the patient within a short time almost as certainly as it did fifty years ago.

The second factor contributing to the importance of cancer is the apparently rapid increase shown by the study of vital statistics from many sources. As a rule deductions from statistics must be accepted very guardedly. When, however, many compilations by a large number of observers all point to the same conclusion, we are forced to accept that conclusion as the truth, which we do in this instance. I will quote but a few of the statements regarding the increased number of cancer cases simply as an index of the general trend of all such statistics.

An examination of the records of the New York Mutual Life Insurance Company has shown that in thirty years the number of deaths from cancer in people over fifty years of age has doubled.

Roswell Park, after a careful study of statistics from England and Wales, claims that the death rate from cancer is now five times as great as it was fifty years ago.

The records of the "Scottish Widows' Fund," a large British life insurance company, show that in sixty years the death rate has increased six times.

I think I need add nothing more to substantiate the statement with which this paper opened, that cancer is the most important problem before medical science to-day. We have seen that our improvement in treatment of cancer in general has not kept up with the advances in other important medical branches. We have seen that the number of cancer cases is increasing, and we all know only too well how absolutely fatal untreated cancer is, and how distressing are the clinical features of its course.

THE TREATMENT OF CANCER IN GENERAL.

Our failure to provide adequate therapeutic measures for the treatment of cancer in general is not due to any inactivity on the part of scientific medicine. Many men have been working for years, thousands of dollars have been spent to solve the problem; to find out what the cause of cancer really is, and to bring forward some form of therapy which shall be successful in every kind of cancer.

All these attempts have failed. There is no treatment for cancer in general. Each variety must be considered separately, at least as far as regards its therapeutics. The only curative treatment worth while considering is, in practically every variety of cancer, surgical removal of the growth in the earliest possible stage of its development.

I shall limit my present remarks to cancer of the uterus, and shall attempt to discuss some of the more recent phases of the question.

THE IMPORTANCE OF UTERINE CANCER.

The prominence which has been given to cancer of the breast through development of the modern operative treatment for this disease, and the success attendant upon it, has given us to a certain extent a false impression of the relative importance of mammary cancer as compared with uterine cancer. I know that, until my attention was called to it, I did not realize that the uterus is the seat of malignant disease nearly twice as often as the breast. Yet the figures published by Dr. J. S. Billings show that in every one thousand cases of cancer in women, there are three hundred and twelve cases of uterine cancer, and only one hundred and seventy-two cases of breast cancer.

In general, cancer is twice as frequent in women as in men. Uterine cancer is the most frequent form of malignant growth in women, representing nearly one-third of all the cancer cases in women. It accounts for one-quarter of all the cases of cancer in general. Therefore, if we can handle this one disease with good results, we shall be treating successfully twenty-five per cent. of all the cancer cases in existence.

Cancer of the uterus is important, not only because it is of frequent occurrence, as I have just shown, but also on account of the class of patients which it attacks and the distressing character of its course. The great majority of these patients have borne children. The great majority of them are between thirty and sixty years of age. In other words, the mothers of families at that time of life when they are most essential for the welfare of their homes and growing children, these are the women most often afflicted with malignant disease of the uterus.

As to the clinical course of this disease, with its foul discharge, frequent hæmorrhages, resultant fistulæ into bladder and rectum, and the intolerable pain, it is unnecessary for me to dwell upon at present.

THE TREATMENT OF UTERINE CANCER.

I shall leave out of consideration all procedures intended to merely relieve symptoms, and shall speak only of that treatment which attempts to entirely cure the disease.

The radical treatment of uterine cancer is entirely operative, and the methods employed to-day are the result of combined labor of many workers during the last twenty-five or thirty years.

Until 1878 the operation usually done with the purpose of effecting a radical cure was amputation of the cervix; the object being to remove this portion of the uterus by an incision passing beyond the utmost limits of the growth. While perhaps some very early cases may have been cured by this operation, it is now considered a very inefficient procedure. Our pathological studies have taught us that the cancer very soon extends beyond the area which can be removed in this way.

In 1878 Freund,* of Strassburg, Germany, first described vaginal hysterectomy for cancer. His technique, which has become classical, consisted in controlling hæmorrhage by ligating each broad ligament and removing the uterus alone without tubes or ovaries.

Vaginal hysterectomy was the favorite operation for a number of years. The fear of hernia and of peritonitis, coupled with the greater difficulty of abdominal hysterectomy, made the vaginal route the operation of choice for many men, and it is still used to a certain extent. But we soon found that this operation was incomplete. Increased skill in pelvic work, joined to the security given by better aseptic technique, enabled operators to use and develop the abdominal operation.

Abdominal hysterectomy is the radical operation for cancer done by the majority of the great gynecologists of this country and Europe to-day. It has many advantages over vaginal hysterectomy. The operator has more

*Centralbl. f. Gyn. No. 12, 1878.

room in which to work. The field of operation is better exposed. Bleeding is more easily and certainly controlled. The uterus with tubes, ovaries, broad ligaments, the connective tissues running out from the cervix to the wall of the pelvis, and the pelvic lymph vessels and glands, may all be removed in one piece. Access is had to the ureters in the lower part of their course, and the ureters or portions of the bladder may be resected if invaded by the growth.

Vaginal hysterectomy is by far the easier operation, but the incision is necessarily made very close to the uterus, and therefore cancer is much more likely to be left behind. Moreover, we are not able to deal with complications caused by extension of the growth nearly so well as through the abdominal incision. Under proper aseptic technique a skillful operator has no more fear of hernia or, peritonitis than with the vaginal operation.

Various modifications have been made in the abdominal operation from time to time. Kelly, Cullen, Ries, Werder, Clark, Mackenrodt and Wertheim, are but a few of the many men who may be mentioned as having contributed to the development of our treatment of cancer. Among the most interesting of the modifications proposed is the removal of the pelvic lymph glands and vessels, which have been advocated by Clark, Sampson, Wertheim, Ries, and others. These investigators liken uterine cancer to breast cancer. In the radical breast operation we remove breast, axillary lymph glands, and all the intermediate tissues in one mass because these axillary glands are often involved even when cancer has not become generalized. By the radical breast operation we can permanently cure a case, although, if simple amputation of the breast were done, the cancer would come back.

Reasoning by analogy, removal "en masse" of the pelvic organs with the accompanying lymph glands and connective tissue bearing the vessels was urged. Much has been written on this point, but, without entering into a discussion of the subject, I would say that the general consensus of opinion is that in most cases the very radical operations are not indicated. When we find the pelvic lymph glands involved, usually other glands which we cannot reach are also involved. Removal of the accessible glands merely adds to the length and risk of the operation without increasing its curative value.

The best operation of uterine cancer to-day consists in removal, by the abdominal route, of the entire uterus with tubes, ovaries, broad ligament, and upper part of the vagina. We often carefully dissect the ureters free from the connective tissue bed in which they lie, and retract them to one side out of the way. Then the dense mass of connective tissue stretching laterally from the cervix to the side wall of the pelvis may also be removed in one mass with the uterus, tubes and ovaries.

Sampson has shown by his studies of organs removed at such operations that, even when the primary cervical growth is small and apparently uncomplicated, we still find little areas of cancer metastases in this connective tissue which stretches out laterally from the cervix to the wall of the pelvis. Obviously this tissue can only be removed by an abdominal operation.

FINAL RESULTS OF THE RADICAL OPERATION.

What are the final results of the operations which we are doing for cancer of the uterus? I can best answer this question by quoting from the records of cancer cases received at the Johns Hopkins Hospital during the first fifteen years of its existence. These data* were compiled by a former colleague of mine, Dr. John A. Sampson, of Albany, N. Y., who was formerly Resident Gynecologist of the Johns Hopkins Hospital.

Sampson's statistics extend from 1889 to 1904. During that time four and ninety cases of uterine cancer were admitted. They form four per cent. of all the gynecological cases admitted. There were seventy-eight cases of carcinoma of the fundus, and four hundred and twelve cases of carcinoma of the cervix. Two hundred and eighteen of these cases had a radical operation. In the earlier cases vaginal hysterectomy was done, but, as the operation developed, abdominal hysterectomy was more used, and finally superseded the vaginal operation.

Thirty-one persons died as a result of operation, giving us an immediate mortality of fourteen per cent. When we compare this primary mortality of fourteen per cent with the dreadful mortality of seventy-one per cent., as reported by Gusserow* in 1885, for a series of one hundred and forty-eight cases, or the mortality of seventy-two per cent. reported by Duncan* in the same year, we see the wonderful advances made by abdominal surgery in this period. But, in order to say that a cancer is cured, it is not sufficient that the patient survives the operation, the wound heals, and the woman leaves the hospital apparently well. Many cases, after two or three years of apparently perfect health following a cancer operation, will have a recurrence of the trouble and finally die of it. By our operation we have lengthened their lives and given them several years of comfort, but we have not absolutely cured the cancer.

To consider a case as cured, we must know that five years after the operation the patient is alive, well, with no recurrence of the trouble. Sampson used this standard.

*Obst. Soc. of London, 1885.

**Journal of Am. Med. Assn.*, May 20, 1905.

*On Extirpation of the Entire Uterus. *Trans. of Die Neubildungen, etc.* Stuttgart, 1885.

Carcinoma of the Fundus.—I will give briefly the results in carcinoma of the fundus. Eighty-four per cent. of the cases came with the growth so little advanced that operation was possible. Eighty-one per cent. of those operated on, who could be traced, were cured; that is, were alive and well, with no recurrence of the disease, five years after the operation. Carcinoma of the fundus is much more infrequent than carcinoma of the cervix. Its course is slower, and it is more likely to be cured by the operation. It is therefore much less important, and I shall pass at once to the consideration of cancer of the cervix.

Carcinoma of the Cervix.—There were four hundred and twelve cases of cervical cancer. Two hundred and fifty of them, or sixty-one per cent., came with the disease too far advanced for a radical operation to be attempted. The other one hundred and sixty-two cases were all operated upon. Sampson found that a little less than twenty-five per cent. of all these operative cases, which he was able to trace, were alive and well five years or more after the operation. Cures were accomplished therefore in about one-quarter of all the cases operated upon.

I believe that in five years from now we shall have a much better showing than this. To-day we are doing a better operation for cancer of the cervix than we did ten years ago. But our present statistics of results must all be based on cases done five years or more ago, and not for a number of years will we know the final results of our work to-day.

We have seen, however, that the majority of the cases came too late for operation. In what proportion of the cervix can we expect a cure, judging from these statistics?

But one hundred and sixty-two, or thirty-nine per cent., of the whole four hundred and twelve cases were operated on. We cured one-fourth of the cases operated on, one-fourth of thirty-nine per cent, or less than one-tenth of all the cases which applied for treatment during those fifteen years.

Gentlemen, this is a gloomy outlook. A therapeutic method which enables us to cure but one patient in every ten seems to be a pretty poor remedy.

But is it the fault of the method alone that nine out of every ten cases of cancer of the cervix dies of the cancer? Manifestly it is not. We can cure twenty-five per cent. of all the cases we can operate on, but in the majority of cases our hands are tied, the patients come with the disease too far advanced for any radical operation.

If statistics compiled fifteen years from now show a greater proportion of cured cases than these statistics, the increase will not be due in great part to improvements in the operation. We are doing to-day just about as extensive and through an operation as our patients can stand. While minor

improvements in technique and increased operative skill may, to a certain extent, help us to cure most cases, still the great hope of every gynecologist for better results in the future is based on his hope of greatly reducing the percentage of patients who apply for treatment too late, and increasing the percentage of those who come with the disease so little advanced that an operation is possible. "Get the cases earlier so that we can operate on them, and we will give you a greater percentage of cured cases," is the cry which is coming from all of the great operating clinics to-day.

CAUSES OF THE DELAY IN MAKING THE DIAGNOSIS.

There are a number of reasons why the percentage of cases applying too late for radical treatment has been so great. In the first place, women have little appreciation of the frequency or symptoms of uterine cancer. They are far more likely to seek medical advice with a cancer of the breast. They have heard more about that. They can feel or perhaps see the lump in their breast, and they usually know that it is not natural for them to have it there. Moreover, their modesty is much less shocked by an examination of the breast than by a vaginal examination.

But with uterine cancer it is different. The early symptoms are not those which impress or frighten the average woman very much. In most cases she has no pain at all at first. She has bleeding now and then, perhaps profuse, but she is so accustomed to her normal menstrual bleeding, that she usually considers this as menstruation, which, for some reason is peculiar. If, as frequently happens, she is past the menopause, the advent of bleeding from cancer may be hailed as a return of her menstrual flow, or as some phenomenon natural to her time of life.

When watery or purulent discharge is the first symptom she is not alarmed. Most of these patients have borne children, they have more or less cervical laceration, and leucorrhœa is no stranger to them. The discharge from the cancer is regarded simply as an insignificant variation in character, or amount, of her customary leucorrhœa.

So, with her natural dread of vaginal examination, she puts off consulting her doctor until marked increase in her symptoms or the advent of pain drives her to him, and then it is so often too late.

From the interviews which I have had with many women suffering from inoperable uterine cancer I believe that the delay in presenting themselves to the surgeon for operation is, in most cases, the result of the factors I have just outlined; namely, the ignorance of women regarding uterine cancer and the slight impression made upon them by its early symptoms, joined to their natural reluctance to submit to pelvic examination.

But unfortunately we cannot blame it all upon the patients. We must credit the loss of many lives to members of our profession. Disinclina-

tion to insist on pelvic examinations when patients object, or a lack of appreciation of the terrible significance of the early symptoms of uterine cancer may bring it about that the physician does not make the correct diagnosis when the patient first consults him. Then, when the actual condition is recognized in such instances, it is usually after a period of futile local treatment which, far from benefiting her, has simply allowed the cancer to become so extensive that radical operation is impossible.

Also other early cases in the hands of a physician may go on without operation because the physician is not thoroughly familiar with all the possibilities of modern surgery, and considers that no operation should be done in any case of cancer.

It has been asserted that the delay is, in a few cases, due to malpractice on the part of the physician who, although he knows the malignant nature of the condition and the possibilities of surgical relief, still keeps up local treatment for the sake of the fee. No cases of such criminal malpractice as this last have ever come to my notice, and, from the high moral character and disinterested conscientiousness of the great majority of the profession in America, I do not believe that such instances can be of frequent occurrence.

I wish to tell you of a few cases which have come under my observation, illustrative of some of the first points mentioned as reasons why doctors may delay in urging operation for uterine cancer. None of the instances, I may say in parenthesis, happened in the State of Florida.

About two years ago a doctor with a large and busy city practice asked if I would be willing to operate upon a charity patient with uterine cancer. I responded that I should be pleased to operate, provided the disease was not too far advanced. The patient presented herself the next day for examination. I found a very extensive cancer of the cervix. The bladder and the bases of the broad ligaments were involved to such an extent that operation was out of the question. I was giving the women my opinion as gently as I could, when she suddenly interrupted me by asking if I could have operated on her had she come to me six months earlier. I answered that I might have been able to do so. "Well, then," she replied, "if I die, it is my doctor's fault. He has been treating me with douches for six months. I thought I had a cancer, but never could get him to examine me until a few days ago."

I never learned why this patient's doctor deferred his examination so long. He was thoroughly competent, and did make the diagnosis as soon as he got around to examine her. Possibly the fact that she was a chronic charity case in a large and busy practice made him overlook the significance of her symptoms.

A second case, which I was once asked to see, points out another way in which the doctor may be at fault, though I am happy to say I believe such cases are of very infrequent occurrence.

A friend of mine, who is a prominent surgeon, although he does no gynecological work, once asked me to see a woman brought to him with the following history:

The patient was the wife of a doctor in a small Northern town. Fourteen months before I saw her she began to have vaginal discharge, streaked now and then with blood and soon becoming foul. Her husband examined her, and found what he considered to be a small ulcer on the cervix. He cauterized this and gave other local treatment, with the result that the discharge became much less for a while. The "ulcer," however, did not heal, and soon discharged more and more profusely. Frequent hemorrhages finally took place. For over a year her husband, a graduated physician, legally licensed to practice medicine, treated that cancer locally, and never made the diagnosis of malignant disease. When he finally decided that he couldn't make it heal, he brought her to my friend for diagnosis and advice.

I was asked to examine her. She presented almost as extreme a case of emaciation as I have ever seen. There were cancer metastases everywhere, and I do not believe that she lived more than a few months longer. Locally, I found that the entire cervix was replaced by a necrotic mass of cancer. The growth extended down the vaginal wall all around, nearly to the outlet. The rectum was infiltrated, and in front the cancer had eaten into the bladder, causing a vesico-vaginal fistula into which I could pass two fingers. Of course we did not operate.

I know nothing of the professional attainments of this patient's husband, other than what I could draw from his treatment of her case. But it shows us the wicked folly of any doctor, no matter how much or how little he knows, attempting to treat by local applications a condition which gives rise to symptoms of cancer, until he is certain beyond reasonable doubt that it is not a cancer. Had this doctor, in place of cauterizing what he supposed to be an ulcer, excised or curetted a bit of growth and had it examined by a competent pathologist, he could have had the diagnosis in an early stage when operation could have been carried out, and not have doomed his wife, as he did, to an agonizing premature death.

Just one more instance I will cite to show you that professional delay may also occur in the case of patients whose standing and means are such that they can readily afford the very best which medical science offers. The following case was detailed to me by a professional friend, in whose veracity I have absolutely no doubt.

A very prominent and wealthy woman in one of our large Northern cities was ill for a number of months with pelvic symptoms. She was attended by her family physician, a man with a large practice among a wealthy clientele, and one in whom the patient had every confidence. After treatment for several months, she was finally examined by a prominent surgeon who pronounced the disease cancer of the uterus, altogether too far advanced for any radical operation. A few months later the patient died of the cancer.

What occasioned the delay in this case I cannot positively say, but probably the symptoms of cancer were not sufficiently appreciated by the physician, and vaginal examination was deferred on account of the reluctance of a pampered, hypersensitive patient whom the doctor did not wish to offend.

Such, gentlemen, are the reasons why the majority of patients come to the surgeon with the growth too far advanced for operation; of more importance is the delay on the part of the patient herself, but to a certain extent, delay on the part of the doctor is also responsible.

HOW MAY WE SECURE AN EARLIER DIAGNOSIS?

For a number of years a persistent, united effort has been made by many prominent gynecologists throughout the world to get these cases earlier. There are two lines along which the work is being done. First, to so educate the laity that women will have some knowledge of the frequency and symptoms of the disease, and come for examination when they perceive any untoward symptoms. Second, to bring all members of the profession to a full realization of the danger of delay, and to an appreciation of the significance of the symptoms and of the necessity for an immediate examination in suspected cases.

These efforts have already shown marked results in increasing the number of operable cases among all cases of uterine cancer applying for treatment. As I have just said, but thirty-one per cent. of all the cases applying to the Johns Hopkins Hospital for treatment during fifteen years, could be operated on. However, if we divide this period of fifteen years into three periods of five years each, and look at the percentage of operable cases applying for treatment during each five year period, some very interesting facts are learned.

During the first five years, twenty-eight per cent. of all cases were operated on; during the second five years thirty-two per cent. were operated on; while in the last period fifty-three per cent. of all cases applying had operations performed.

Part of this increase, to be sure, is due to increased skill in operative technique, but the greater part of it comes from the spread of knowledge

concerning uterine cancer among the laity, increased confidence of physicians in the value of surgical treatment, and greater appreciation on the part of physicians for the necessity of an earlier diagnosis and treatment.

I wish to briefly refer to a movement instituted a few years ago in Germany in order to bring patients with this disease to the operative clinics earlier.*

Winter, a prominent German gynecologist, found that he could operate on sixty-two per cent. of all the cases seen by him. He thought that he could improve this. A campaign was instituted with the purpose of bringing the matter to the attention of both laity and profession. It was done in the following way: Pamphlets were sent to all physicians in Eastern Prussia, requesting their co-operation, emphasizing the seriousness of symptoms which might be ignored, and pleading for immediate examination in all such cases. Pamphlets were also sent to all midwives. The German midwife has a more important and authoritative position than she has with us, and women are in the habit of consulting her for various gynecological complaints. The pamphlets sent to the midwives detailed the symptoms, and warned them of the insidiousness and danger of the disease. They were also asked that any patients with such symptoms be sent at once to doctors. Finally, publications were made in all the leading newspapers, calling attention of women to the necessity of promptly seeking medical aid in gynecological troubles, and warning them of the danger of delay.

As a result of these vigorous methods, Winter reported, two years later, that he was operating on seventy-four per cent. of all cases presenting themselves, instead of sixty-two per cent. as before the campaign was begun, and that ninety per cent. of all operations were done within two weeks after the diagnosis was made.

Winter's measures are, of course, impracticable for us in this country, but it is possible for the medical profession to do much which will be of great benefit in raising the percentage of operable cases.

First, we must make every effort to diagnose these cases as soon as they come to us, and do our best to make them consent to surgical measures, if the case is not too far gone.

Second, we can aid in disseminating among the laity knowledge of uterine cancer and its symptoms, and impressing women with the necessity of an immediate examination should they have any untoward pelvic symptoms.

As to making the diagnosis ourselves. An examination should always be insisted upon in every case of irregular hemorrhage. Especially should we be suspicious upon the advent of bleeding in women past the menopause.

**Centralbl. F. Gyn.*, Vol. XLII, p. 1192.

Suddenly increased leucorrhœa, watery, irritating or bloody discharges, should be sufficient to demand an immediate examination. Moreover, if our examination, manually and with the speculum, gives us not clue as to the cause of the bleeding, we should never attempt local treatment until a microscopical examination has shown the endometrium free from cancer.

Such a microscopical examination has no especial difficulty. The patients with suspected cases usually have borne children, and there is more or less perineal laceration present. In most cases the cervix can be dilated a little, and the endometrium curetted without an anæsthetic. The curettings are best collected in an ordinary teaspoon as fast as the curet draws them out of the dilated cervix, and then transferred at once to a small vial of five per cent, formalin solution, or of 95 per cent. alcohol, and forwarded to the nearest expert pathologist for microscopical examination. In some cases we may not be able to tell by gross examination whether a small eroded area on the cervix is the early stage of cancer or not. Then a bit of the suspected area may be excised, put at once into the formalin or alcohol, and sent to the pathologist. On the report of the pathologist alone can we bar out the existence of cancer in some cases.

If these principles had been adhered to in the three cases whose histories I outlined to you a few moments ago, every one of those women could have had the benefit of a radical operation.

There is usually ample warning in cancer of the uterus. In the two hundred and fifty cases which came to the Hopkins Hospital too late for operation, there was a history of vaginal bleeding for six months or more previously in sixty per cent. of them, while eighty per cent. had vaginal bleeding for three months or more before they came.

This shows us how unnecessary it was for many of these cases to become so far advanced. Had they been examined at the first sign of the trouble the diagnosis made, and operation carried out at once, probably fifty of these two hundred and fifty inoperable cases might have been saved.

The education of the laity to an appreciation of uterine cancer presents some difficulties. We cannot use the means employed by Winter. Newspaper articles or popular addresses on such subjects are in themselves obnoxious to the American physician. But there are other ways. In his family practice, the doctor can often carefully and tactfully give information on this subject to many of his women patients. Every woman thus educated will be a center for the dissemination of knowledge about uterine cancer in the circle of her women friends. What does it matter if half a dozen frightened, neurasthenic women do seek the doctor's office in the next six months, each one convinced that she has a cancer? If she has not, the gentle reassurance of her family physician will quiet her fears, while soon-

er or later some woman with an early case of cancer will be driven to the doctor's office simply on account of the knowledge she thus received.

I want to tell you the circumstances under which one case of cancer was diagnosed. A medical student, whom I knew well, took a number of his books home on his summer vacation. His mother had the customary curiosity of the laity in medical matters and looked them over. The textbook on gynecology was very interesting to her, and she read many parts of it carefully, including the section on uterine cancer. When the student discovered her activity, he added a few words on the danger and insidiousness of that disease. All of these facts made a deep impression, they were communicated to the lady's sister and were duly absorbed by her. A few months later a friend of the sister was telling her some strange and disagreeable pelvic symptoms from which she had recently been suffering. They corresponded exactly with what the sister had learned were the symptoms of uterine cancer, and she immediately made the diagnosis in her own mind. After several weeks of urging, she prevailed upon her friend to seek medical service. The diagnosis was confirmed. Unfortunately the delay had been too long, and the case was inoperable.

This case shows, however, how intelligent women will absorb and utilize such knowledge, and it is the duty of all of us to give them as much as we can of this knowledge.

In his task of educating the laity in this disease, the doctor has one most efficient help whose value I have never seen sufficiently emphasized. I refer to the effect which the words of a good, tactful nurse have upon her women patients. After a long illness, an intelligent woman usually has great confidence in the knowledge of a nurse who has faithfully and skilfully cared for her. The nurse is of her sex, and the patient feels that she can freely ask for medical information on various topics and depend upon the answers given her.

Gentlemen, if all the nurses in this country were fully alive to the cancer problem, and used their opportunities to present it to their patients in a careful, tactful way, the battle would be half won. In some training schools for nurses the importance of this disease and its symptoms is being strongly emphasized, and results are already attesting to the value of the teaching. The work, however, is only in its incipency. It promises perhaps to give us more aid than any other one method when it shall be fully established.

CONCLUSION.

In conclusion, I wish to recapitulate the points which I have tried to bring out in this paper.

1. Cancer is one of the most serious and important problems of medical science to-day.

2. In any form of cancer the only radical treatment worth considering is surgical removal of the growth in the earliest possible stage of its development.

3. Uterine cancer is a very important variety. It accounts for one-quarter of all the cancer cases in existence, its clinical course is most distressing and the majority of its victims are the mothers of growing children.

4. The radical treatment for uterine cancer, which is generally accepted as the best to-day, consists in abdominal hysterectomy; removing in one mass the uterus, tubes, ovaries, broad ligaments, and a varying portion of the connective tissue running laterally from the cervix to the wall of the pelvis. Removal of the pelvic lymphatic glands and vessels is not done as a routine procedure.

5. At the Johns Hopkins Hospital the immediate mortality from radical cancer operations is fourteen per cent. Cures were accomplished in eighty-one per cent. of all the operations done for cancer of the fundus, and in a little less than twenty-five per cent. of all the operations for cancer of the cervix. By cure we mean that the patient is alive and well, with no recurrence of the cancer, five years after operation.

6. Sixty-one per cent. of all the cases of cancer of the cervix, by far the most frequent and important variety, came with the growth too far advanced for radical treatment. Therefore less than one-tenth of all the cases of cervical cancer applying for treatment were cured.

7. In order to cure more cases it is necessary to reduce the percentage of cases which apply for treatment too late.

8. The factors which are accountable for so many cases applying for treatment with the growth too far advanced to permit of radical operation are as follows:

Women have little knowledge of uterine cancer, are not alarmed at its early symptoms, and dislike vaginal examinations. Hence they often do not consult a doctor until the disease is far advanced.

Doctors may be responsible if they do not fully appreciate the significance of the early symptoms, do not insist on prompt examination in suspected cases, or, considering cancer incurable in even the earliest stages, do not urge operative treatment in cases which can be operated upon.

9. In order to secure a greater proportion of operable cases attempts are being made, not only to give women some knowledge of uterine cancer, and to impress on them the necessity for examination when any untoward symptom arises, but also, to bring the profession to a full appreciation of the frequency of the disease, the significance of slight symptoms, and the necessity of early diagnosis and treatment.—From the Georgia Practician.

Miscellaneous Notes.

The North Idaho Medical Society will hold its next meeting at Coeur d'Alene City, Idaho, June 19, and will be followed by a half day spent at the handsome new St. Luke's hospital, a Protestant institution in Spokane.

FRENCH LICK SPRINGS.

As the summer approaches many will cast around looking for suitable summer resort where pleasure and medicinal waters can be found. For such the French Lick of Indiana, with Thomas Taggart as President, will readily recommend itself. The waters are highly endorsed by many reputable physicians.

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Bedford Springs, Mass.

A POCKET CASE FREE.

Great interest is manifested by the profession just now, and rightly, in the nostrum evil—the practice of promoting secret ready-made prescriptions for the doctor to use as the manufacturer advises, all of which has a distinct degenerative effect upon the profession as a scientific body of thinking men. The Abbott Alkaloidal Co., always alive to the best interests of the physician and obviating, in their idea, any excuse for all this, offer to the profession standard active principles which the doctor can apply, singly or in combination, at his own discretion—dispensing or prescribing as he may prefer.

To any practicing physician who will write asking for it, and mentioning this journal, they will send, free of charge, a neat pocket case containing six vials of the essential (most used) active principle—the smallest and neatest emergency pocket case ever made—just fits the fob-pocket and but a little larger than your watch. See their advertisement in this journal. A postal card will do it.

A TONIC DURING CONVALESCENCE FROM ACUTE LUNG AND BRONCHIAL DISEASES.

The large number of cases of pneumonia, bronchitis and other acute diseases of the air passages prevalent during the winter and early spring that will confront physicians, put them on the qui vive for agents of a remedial nature that will assist them in their winter's work. Opinion as to the proper management of a pneumonia differs widely, one man adhering to a certain mode of procedure and another employing another method of treatment. Owing to the very nature of the disease, there could scarcely be any uni-

formity of treatment. The point at issue is to keep the inflammation under subjection as well as possible, guiding the patient with the same cool and steady hand a mariner uses in steering his craft through a treacherous channel.

But even with the defervescence of the disease established, the trouble is not yet over; there are still some rocks and shoals, and possibly not charted. It is at this time when the need for a tonic constructive is clearly shown. The patient should now be put upon Hagee's cordial of cod liver oil. This is one of the best known of the cod liver oil preparations, and its palatability adds very much to its efficiency as a remedy. Hagee's cordial will prove acceptable to stomachs that are intolerant of ordinary cod liver oil. Its therapeutic value is much enhanced by the addition of the hypophosphites of calcium and sodium.—The Medical Mirror.

THE IMPORTANCE OF AN ACTIVE LIVER.

A normal state of health is the sum total of the proper performance of the functions assigned to the several vital organs. These functions are so interdependent in their attainment of the end, that disturbance in one is reflected throughout the entire system. With all the organs functioning in harmonious unison there is the state known as normal health. This state is departed from in the degree that one of the integral parts of the whole fails to perform properly through falling out of adjustment.

This especially holds good in regard to the liver. The liver is the largest organ in the body, and the part it plays in the metabolic processes of the human economy is not secondary to that of other organs. A host of ailments may be directly traced to a derangement of hepatic action. It may be accepted, that an active liver insures a fair degree of, if not perfect, health. But let there be the least departure from normal, and pronounced results are apparent. The digestive processes are so dependent upon a free liver secretion and excretion that gastric and intestinal disturbances quickly follow any interference with these hepatic duties. It thus follows that there must be no interference with the flow of bile if health would be preserved.

The profession so well recognizes the influence of a perverted hepatic function as a factor in interfering with the regular physiological processes, that it almost instinctively turns its attention to the liver and takes steps to set it right. With the average physician it is a routine practice to administer a cholagogue, and results would seem to justify this procedure. If the liver is not primarily at fault it is affected secondarily, so no exception can be taken to this rule. For this purpose calomel, phosphate of soda and other drugs are in common use, but none has a worthier name as a cholagogue than Chionia. Chionia is the active constituent of chionan-

thus virginica and in the process of manufacture the inert and objectionable parts of the plant are eliminated. This agent has long been known as a valuable addition to modern drug lists and its extensive use among physicians, who get results, is evidence that it is a preparation of much merit.

It is commonly used in hepatic torpor, a condition calling for direct stimulation of the liver cells. It stimulates the cells in efficient manner, producing a healthy secretion of bile and aids in its discharge into the intestinal canal. In Jaundice it ameliorates the condition by providing a normal flow and securing an outlet for the bile pigment. It is valuable in constipation, not through any purging effect, but by its influence on the liver. In chronic constipation it is of particular efficiency. The ordinary dose of Chionia is one or two fluid drachms three or four times a day.—Medical Mirror.

NEEDED LIGISLATION.

Increased attention is wisely directed to an alarming extent of sophistication in foods and drugs; the former commonly being contaminated by preservatives which are injurious, and the latter, under guise of harmless remedies, often owing efficacy to dangerous narcotics. This deplorable practice has been officially shown to be so widespread and demoralizing as to demand rigid legislation to protect both the consumer and the reputable merchant.

Several states have framed laws against the falsity of traffic in commodities essential to life and health, and a bill is now before congress which, if enacted, will afford Governmental protection against such abuse, and, by guarding against misrepresentation by misbranding, will extend authoritative assurance to those who place dependence upon recognized remedies in time of need.

The investigations prompted by state and national measures have necessitated critical examinations of various proprietary preparations as to their purity and fitness. Notable instances of such work were the investigations of the Ohio Pure Food Commission, the State Board of Health of Pennsylvania, and more recently the Illinois Pharmacy Board. In each instance Vin Mariani, analyzed from examples purchased in the open market, was proved to be precisely as represented and in conformity with the strict Governmental analysis enacted in France, Germany, Russia and elsewhere in Europe.

This clearly indicated that the high standard of this preparation, established nearly half a century ago, continues unaltered, and is a justification for the distinctive endorsement which physicians everywhere have voluntarily accorded this unique restorative-tonic.